



Sequence Listing

<120> COMPOSITIONS AND METHODS FOR THE DIAGNOSIS AND
TREATMENT OF TUMOR

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<213> Homo sapien

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<211> 1939

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<213> Homo sapien

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<213> Homo sapien

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His	Ala	Lys	Asp	Pro	Asp	Ala	Ala	Asn	Ser	Pro	Ile	Arg	Tyr	Ser
				410					415					420
Ile	Asp	Arg	His	Thr	Asp	Leu	Asp	Arg	Phe	Phe	Thr	Ile	Asn	Pro
				425					430					435
Glu	Asp	Gly	Phe	Ile	Lys	Thr	Thr	Lys	Pro	Leu	Asp	Arg	Glu	Glu
				440					445					450
Thr	Ala	Trp	Leu	Asn	Ile	Thr	Val	Phe	Ala	Ala	Glu	Ile	His	Asn
				455					460					465
Arg	His	Gln	Glu	Ala	Gln	Val	Pro	Val	Ala	Ile	Arg	Val	Leu	Asp
				470					475					480
Val	Asn	Asp	Asn	Ala	Pro	Lys	Phe	Ala	Ala	Pro	Tyr	Glu	Gly	Phe
				485					490					495
Ile	Cys	Glu	Ser	Asp	Gln	Thr	Lys	Pro	Leu	Ser	Asn	Gln	Pro	Ile
				500					505					510
Val	Thr	Ile	Ser	Ala	Asp	Asp	Lys	Asp	Asp	Thr	Ala	Asn	Gly	Pro
				515					520					525
Arg	Phe	Ile	Phe	Ser	Leu	Pro	Pro	Glu	Ile	Ile	His	Asn	Pro	Asn
				530					535					540
Phe	Thr	Val	Arg	Asp	Asn	Arg	Asp	Asn	Thr	Ala	Gly	Val	Tyr	Ala
				545					550					555
Arg	Arg	Gly	Gly	Phe	Ser	Arg	Gln	Lys	Gln	Asp	Leu	Tyr	Leu	Leu
				560					565					570
Pro	Ile	Val	Ile	Ser	Asp	Gly	Gly	Ile	Pro	Pro	Met	Ser	Ser	Thr
				575					580					585

Asn Thr Leu Thr	Ile Lys Val Cys Gly	Cys Asp Val Asn Gly	Ala
590		595	600
Leu Leu Ser Cys	Asn Ala Glu Ala Tyr	Ile Leu Asn Ala Gly	Leu
605		610	615
Ser Thr Gly Ala	Leu Ile Ala Ile Leu	Ala Cys Ile Val Ile	Leu
620		625	630
Leu Val Ile Val	Val Leu Phe Val Thr	Leu Arg Arg Gln Lys	Lys
635		640	645
Glu Pro Leu Ile	Val Phe Glu Glu Glu	Asp Val Arg Glu Asn	Ile
650		655	660
Ile Thr Tyr Asp	Asp Glu Gly Gly Gly	Glu Glu Asp Thr Glu	Ala
665		670	675
Phe Asp Ile Ala	Thr Leu Gln Asn Pro	Asp Gly Ile Asn Gly	Phe
680		685	690
Ile Pro Arg Lys	Asp Ile Lys Pro Glu	Tyr Gln Tyr Met Pro	Arg
695		700	705
Pro Gly Leu Arg	Pro Ala Pro Asn Ser	Val Asp Val Asp Asp	Phe
710		715	720
Ile Asn Thr Arg	Ile Gln Glu Ala Asp	Asn Asp Pro Thr Ala	Pro
725		730	735
Pro Tyr Asp Ser	Ile Gln Ile Tyr Gly	Tyr Glu Gly Arg Gly	Ser
740		745	750
Val Ala Gly Ser	Leu Ser Ser Leu Glu	Ser Ala Thr Thr Asp	Ser
755		760	765
Asp Leu Asp Tyr	Asp Tyr Leu Gln Asn	Trp Gly Pro Arg Phe	Lys
770		775	780
Lys Leu Ala Asp	Leu Tyr Gly Ser Lys	Asp Thr Phe Asp Asp	Asp
785		790	795

Ser

<210> 23
 <211> 215
 <212> PRT
 <213> Homo sapien

<400> 23
 Met Tyr Gly Lys Ser Ser Thr Arg Ala Val Leu Leu Leu Leu Gly
 1 5 10 15
 Ile Gln Leu Thr Ala Leu Trp Pro Ile Ala Ala Val Glu Ile Tyr
 20 25 30
 Thr Ser Arg Val Leu Glu Ala Val Asn Gly Thr Asp Ala Arg Leu

	35		40		45
Lys Cys Thr Phe Ser Ser Phe Ala Pro Val Gly Asp Ala Leu Thr	50		55		60
Val Thr Trp Asn Phe Arg Pro Leu Asp Gly Gly Pro Glu Gln Phe	65		70		75
Val Phe Tyr Tyr His Ile Asp Pro Phe Gln Pro Met Ser Gly Arg	80		85		90
Phe Lys Asp Arg Val Ser Trp Asp Gly Asn Pro Glu Arg Tyr Asp	95		100		105
Ala Ser Ile Leu Leu Trp Lys Leu Gln Phe Asp Asp Asn Gly Thr	110		115		120
Tyr Thr Cys Gln Val Lys Asn Pro Pro Asp Val Asp Gly Val Ile	125		130		135
Gly Glu Ile Arg Leu Ser Val Val His Thr Val Arg Phe Ser Glu	140		145		150
Ile His Phe Leu Ala Leu Ala Ile Gly Ser Ala Cys Ala Leu Met	155		160		165
Ile Ile Ile Val Ile Val Val Val Leu Phe Gln His Tyr Arg Lys	170		175		180
Lys Arg Trp Ala Glu Arg Ala His Lys Val Val Glu Ile Lys Ser	185		190		195
Lys Glu Glu Glu Arg Leu Asn Gln Glu Lys Lys Val Ser Val Tyr	200		205		210
Leu Glu Asp Thr Asp	215				

<210> 24
 <211> 796
 <212> PRT
 <213> Homo sapien

<400> 24
 Met Lys Glu Asn Tyr Cys Leu Gln Ala Ala Leu Val Cys Leu Gly
 1 5 10 15
 Met Leu Cys His Ser His Ala Phe Ala Pro Glu Arg Arg Gly His
 20 25 30
 Leu Arg Pro Ser Phe His Gly His His Glu Lys Gly Lys Glu Gly
 35 40 45
 Gln Val Leu Gln Arg Ser Lys Arg Gly Trp Val Trp Asn Gln Phe
 50 55 60
 Phe Val Ile Glu Glu Tyr Thr Gly Pro Asp Pro Val Leu Val Gly
 65 70 75

Arg	Leu	His	Ser	Asp	Ile	Asp	Ser	Gly	Asp	Gly	Asn	Ile	Lys	Tyr		80	85	90
Ile	Leu	Ser	Gly	Glu	Gly	Ala	Gly	Thr	Ile	Phe	Val	Ile	Asp	Asp		95	100	105
Lys	Ser	Gly	Asn	Ile	His	Ala	Thr	Lys	Thr	Leu	Asp	Arg	Glu	Glu		110	115	120
Arg	Ala	Gln	Tyr	Thr	Leu	Met	Ala	Gln	Ala	Val	Asp	Arg	Asp	Thr		125	130	135
Asn	Arg	Pro	Leu	Glu	Pro	Pro	Ser	Glu	Phe	Ile	Val	Lys	Val	Gln		140	145	150
Asp	Ile	Asn	Asp	Asn	Pro	Pro	Glu	Phe	Leu	His	Glu	Thr	Tyr	His		155	160	165
Ala	Asn	Val	Pro	Glu	Arg	Ser	Asn	Val	Gly	Thr	Ser	Val	Ile	Gln		170	175	180
Val	Thr	Ala	Ser	Asp	Ala	Asp	Asp	Pro	Thr	Tyr	Gly	Asn	Ser	Ala		185	190	195
Lys	Leu	Val	Tyr	Ser	Ile	Leu	Glu	Gly	Gln	Pro	Tyr	Phe	Ser	Val		200	205	210
Glu	Ala	Gln	Thr	Gly	Ile	Ile	Arg	Thr	Ala	Leu	Pro	Asn	Met	Asp		215	220	225
Arg	Glu	Ala	Lys	Glu	Glu	Tyr	His	Val	Val	Ile	Gln	Ala	Lys	Asp		230	235	240
Met	Gly	Gly	His	Met	Gly	Gly	Leu	Ser	Gly	Thr	Thr	Lys	Val	Thr		245	250	255
Ile	Thr	Leu	Thr	Asp	Val	Asn	Asp	Asn	Pro	Pro	Lys	Phe	Pro	Gln		260	265	270
Arg	Leu	Tyr	Gln	Met	Ser	Val	Ser	Glu	Ala	Ala	Val	Pro	Gly	Glu		275	280	285
Glu	Val	Gly	Arg	Val	Lys	Ala	Lys	Asp	Pro	Asp	Ile	Gly	Glu	Asn		290	295	300
Gly	Leu	Val	Thr	Tyr	Asn	Ile	Val	Asp	Gly	Asp	Gly	Met	Glu	Ser		305	310	315
Phe	Glu	Ile	Thr	Thr	Asp	Tyr	Glu	Thr	Gln	Glu	Gly	Val	Ile	Lys		320	325	330
Leu	Lys	Lys	Pro	Val	Asp	Phe	Glu	Thr	Glu	Arg	Ala	Tyr	Ser	Leu		335	340	345
Lys	Val	Glu	Ala	Ala	Asn	Val	His	Ile	Asp	Pro	Lys	Phe	Ile	Ser		350	355	360
Asn	Gly	Pro	Phe	Lys	Asp	Thr	Val	Thr	Val	Lys	Ile	Ser	Val	Glu				

365	370	375
Asp Ala Asp Glu Pro Pro Met Phe Leu	Ala Pro Ser Tyr Ile His	
380	385	390
Glu Val Gln Glu Asn Ala Ala Ala Gly	Thr Val Val Gly Arg Val	
395	400	405
His Ala Lys Asp Pro Asp Ala Ala Asn	Ser Pro Ile Arg Tyr Ser	
410	415	420
Ile Asp Arg His Thr Asp Leu Asp Arg	Phe Phe Thr Ile Asn Pro	
425	430	435
Glu Asp Gly Phe Ile Lys Thr Thr Lys	Pro Leu Asp Arg Glu Glu	
440	445	450
Thr Ala Trp Leu Asn Ile Thr Val Phe	Ala Ala Glu Ile His Asn	
455	460	465
Arg His Gln Glu Ala Gln Val Pro Val	Ala Ile Arg Val Leu Asp	
470	475	480
Val Asn Asp Asn Ala Pro Lys Phe Ala	Ala Pro Tyr Glu Gly Phe	
485	490	495
Ile Cys Glu Ser Asp Gln Thr Lys Pro	Leu Ser Asn Gln Pro Ile	
500	505	510
Val Thr Ile Ser Ala Asp Asp Lys Asp	Asp Thr Ala Asn Gly Pro	
515	520	525
Arg Phe Ile Phe Ser Leu Pro Pro Glu	Ile Ile His Asn Pro Asn	
530	535	540
Phe Thr Val Arg Asp Asn Arg Asp Asn	Thr Ala Gly Val Tyr Ala	
545	550	555
Arg Arg Gly Gly Phe Ser Arg Gln Lys	Gln Asp Leu Tyr Leu Leu	
560	565	570
Pro Ile Val Ile Ser Asp Gly Gly Ile	Pro Pro Met Ser Ser Thr	
575	580	585
Asn Thr Leu Thr Ile Lys Val Cys Gly	Cys Asp Val Asn Gly Ala	
590	595	600
Leu Leu Ser Cys Asn Ala Glu Ala Tyr	Ile Leu Asn Ala Gly Leu	
605	610	615
Ser Thr Gly Ala Leu Ile Ala Ile Leu	Ala Cys Ile Val Ile Leu	
620	625	630
Leu Val Ile Val Val Leu Phe Val Thr	Leu Arg Arg Gln Lys Lys	
635	640	645
Glu Pro Leu Ile Val Phe Glu Glu Glu	Asp Val Arg Glu Asn Ile	
650	655	660

Ile	Thr	Tyr	Asp	Asp	Glu	Gly	Gly	Gly	Glu	Glu	Asp	Thr	Glu	Ala
				665					670					675
Phe	Asp	Ile	Ala	Thr	Leu	Gln	Asn	Pro	Asp	Gly	Ile	Asn	Gly	Phe
				680					685					690
Ile	Pro	Arg	Lys	Asp	Ile	Lys	Pro	Glu	Tyr	Gln	Tyr	Met	Pro	Arg
				695					700					705
Pro	Gly	Leu	Arg	Pro	Ala	Pro	Asn	Ser	Val	Asp	Val	Asp	Asp	Phe
				710					715					720
Ile	Asn	Thr	Arg	Ile	Gln	Glu	Ala	Asp	Asn	Asp	Pro	Thr	Ala	Pro
				725					730					735
Pro	Tyr	Asp	Ser	Ile	Gln	Ile	Tyr	Gly	Tyr	Glu	Gly	Arg	Gly	Ser
				740					745					750
Val	Ala	Gly	Ser	Leu	Ser	Ser	Leu	Glu	Ser	Ala	Thr	Thr	Asp	Ser
				755					760					765
Asp	Leu	Asp	Tyr	Asp	Tyr	Leu	Gln	Asn	Trp	Gly	Pro	Arg	Phe	Lys
				770					775					780
Lys	Leu	Ala	Asp	Leu	Tyr	Gly	Ser	Lys	Asp	Thr	Phe	Asp	Asp	Asp
				785					790					795

Ser

<210> 25
 <211> 123
 <212> PRT
 <213> Homo sapien

<400> 25

Met	Ala	Thr	Ala	Ala	Gly	Ala	Thr	Tyr	Phe	Gln	Arg	Gly	Ser	Leu
1				5					10					15
Phe	Trp	Phe	Thr	Val	Ile	Thr	Leu	Ser	Phe	Gly	Tyr	Tyr	Thr	Trp
				20					25					30
Val	Val	Phe	Trp	Pro	Gln	Ser	Ile	Pro	Tyr	Gln	Asn	Leu	Gly	Pro
				35					40					45
Leu	Gly	Pro	Phe	Thr	Gln	Tyr	Leu	Val	Asp	His	His	His	Thr	Leu
				50					55					60
Leu	Cys	Asn	Gly	Tyr	Trp	Leu	Ala	Trp	Leu	Ile	His	Val	Gly	Glu
				65					70					75
Ser	Leu	Tyr	Ala	Ile	Ala	Leu	Cys	Lys	His	Lys	Gly	Ile	Thr	Ser
				80					85					90
Gly	Arg	Ala	Gln	Leu	Leu	Trp	Phe	Leu	Gln	Thr	Phe	Phe	Phe	Gly
				95					100					105
Ile	Ala	Ser	Leu	Thr	Ile	Leu	Ile	Ala	Tyr	Lys	Arg	Lys	Arg	Gln

110

115

120

Lys Gln Thr

<210> 26

<211> 257

<212> PRT

<213> Homo sapien

<400> 26

Met	Ala	Ser	Lys	Ile	Gly	Ser	Arg	Arg	Trp	Met	Leu	Gln	Leu	Ile
1				5					10					15

Met	Gln	Leu	Gly	Ser	Val	Leu	Leu	Thr	Arg	Cys	Pro	Phe	Trp	Gly
				20					25					30

Cys	Phe	Ser	Gln	Leu	Met	Leu	Tyr	Ala	Glu	Arg	Ala	Glu	Ala	Arg
				35					40					45

Arg	Lys	Pro	Asp	Ile	Pro	Val	Pro	Tyr	Leu	Tyr	Phe	Asp	Met	Gly
				50					55					60

Ala	Ala	Val	Leu	Cys	Ala	Ser	Phe	Met	Ser	Phe	Gly	Val	Lys	Arg
				65					70					75

Arg	Trp	Phe	Ala	Leu	Gly	Ala	Ala	Leu	Gln	Leu	Ala	Ile	Ser	Thr
				80					85					90

Tyr	Ala	Ala	Tyr	Ile	Gly	Gly	Tyr	Val	His	Tyr	Gly	Asp	Trp	Leu
				95					100					105

Lys	Val	Arg	Met	Tyr	Ser	Arg	Thr	Val	Ala	Ile	Ile	Gly	Gly	Phe
				110					115					120

Leu	Val	Leu	Ala	Ser	Gly	Ala	Gly	Glu	Leu	Tyr	Arg	Arg	Lys	Pro
				125					130					135

Arg	Ser	Arg	Ser	Leu	Gln	Ser	Thr	Gly	Gln	Val	Phe	Leu	Gly	Ile
				140					145					150

Tyr	Leu	Ile	Cys	Val	Ala	Tyr	Ser	Leu	Gln	His	Ser	Lys	Glu	Asp
				155					160					165

Arg	Leu	Ala	Tyr	Leu	Asn	His	Leu	Pro	Gly	Gly	Glu	Leu	Met	Ile
				170					175					180

Gln	Leu	Phe	Phe	Val	Leu	Tyr	Gly	Ile	Leu	Ala	Leu	Ala	Phe	Leu
				185					190					195

Ser	Gly	Tyr	Tyr	Val	Thr	Leu	Ala	Ala	Gln	Ile	Leu	Ala	Val	Leu
				200					205					210

Leu	Pro	Pro	Val	Met	Leu	Leu	Ile	Asp	Gly	Asn	Val	Ala	Tyr	Trp
				215					220					225

His	Asn	Thr	Arg	Arg	Val	Glu	Phe	Trp	Asn	Gln	Met	Lys	Leu	Leu
				230					235					240

Gly	Glu	Ser	Val	Gly	Ile	Phe	Gly	Thr	Ala	Val	Ile	Leu	Ala	Thr
				245					250					255

Asp Gly

<210> 27
 <211> 460
 <212> PRT
 <213> Homo sapien

<220>
 <221> Unsure
 <222> 381
 <223> Unknown amino acid

<400> 27

Gly	Arg	Gly	Ser	Pro	Leu	Ala	Leu	Leu	Ile	Arg	Met	Lys	Thr	Leu
1				5					10					15
Leu	Phe	Gly	Val	Trp	Ala	Leu	Leu	Ala	Leu	Ile	Leu	Cys	Pro	Gly
			20						25					30
Val	Pro	Glu	Glu	Leu	Phe	Glu	Val	Ser	Ile	Trp	Pro	Ser	Gln	Ala
			35						40					45
Leu	Val	Glu	Phe	Gly	Gln	Ser	Leu	Val	Cys	Asn	Cys	Ser	Thr	Thr
			50						55					60
Cys	Pro	Asp	Pro	Gly	Pro	Ser	Gly	Ile	Glu	Thr	Phe	Leu	Lys	Lys
				65					70					75
Thr	Gln	Val	Asp	Lys	Gly	Pro	Gln	Trp	Lys	Glu	Phe	Leu	Leu	Glu
				80					85					90
Asp	Val	Thr	Glu	Asn	Ser	Ile	Leu	Gln	Cys	Phe	Phe	Ser	Cys	Ala
				95					100					105
Gly	Ile	Gln	Lys	Asp	Thr	Ser	Leu	Gly	Ile	Thr	Val	Tyr	Gln	Pro
				110					115					120
Pro	Glu	Gln	Val	Ile	Leu	Glu	Leu	Gln	Pro	Ala	Trp	Val	Ala	Val
				125					130					135
Asp	Glu	Ala	Phe	Thr	Val	Lys	Cys	His	Val	Pro	Ser	Val	Ala	Pro
				140					145					150
Leu	Glu	Ser	Leu	Thr	Leu	Ala	Leu	Leu	Gln	Gly	Asn	Gln	Glu	Leu
				155					160					165
His	Arg	Lys	Asn	Phe	Thr	Ser	Leu	Ala	Val	Ala	Ser	Gln	Arg	Ala
				170					175					180
Glu	Val	Ile	Ile	Ser	Val	Arg	Ala	Gln	Lys	Glu	Asn	Asp	Arg	Cys
				185					190					195
Asn	Ser	Ser	Cys	His	Ala	Glu	Leu	Asp	Leu	Ser	Leu	Gln	Gly	Gly
				200					205					210

Arg	Leu	Phe	Gln	Gly	Ser	Ser	Pro	Ile	Arg	Ile	Val	Arg	Ile	Phe
				215					220					225
Glu	Phe	Ser	Gln	Ser	Pro	His	Ile	Trp	Val	Ser	Ser	Leu	Leu	Glu
				230					235					240
Ala	Gly	Met	Ala	Glu	Thr	Val	Ser	Cys	Glu	Val	Ala	Arg	Val	Phe
				245					250					255
Pro	Ala	Lys	Glu	Val	Met	Phe	His	Met	Phe	Leu	Glu	Asp	Gln	Glu
				260					265					270
Leu	Ser	Ser	Ser	Leu	Ser	Trp	Glu	Gly	Asp	Thr	Ala	Trp	Ala	Asn
				275					280					285
Ala	Thr	Ile	Arg	Thr	Met	Glu	Ala	Gly	Asp	Gln	Glu	Leu	Ser	Cys
				290					295					300
Phe	Ala	Ser	Leu	Gly	Ala	Met	Glu	Gln	Lys	Thr	Arg	Lys	Leu	Val
				305					310					315
His	Ser	Tyr	Ser	Phe	Pro	Pro	Pro	Ile	Leu	Glu	Leu	Lys	Glu	Ser
				320					325					330
Tyr	Pro	Leu	Ala	Gly	Thr	Asp	Ile	Asn	Val	Thr	Cys	Ser	Gly	His
				335					340					345
Val	Leu	Thr	Ser	Pro	Ser	Pro	Thr	Leu	Arg	Leu	Gln	Gly	Ala	Pro
				350					355					360
Asp	Leu	Pro	Ala	Gly	Glu	Pro	Ala	Trp	Leu	Leu	Leu	Thr	Ala	Arg
				365					370					375
Glu	Glu	Asp	Asp	Gly	Xaa	Asn	Phe	Ser	Cys	Glu	Ala	Ser	Leu	Val
				380					385					390
Val	Gln	Gly	Gln	Arg	Leu	Met	Lys	Thr	Thr	Val	Ile	Gln	Leu	His
				395					400					405
Ile	Leu	Lys	Pro	Gln	Leu	Glu	Glu	Ser	Ser	Cys	Pro	Gly	Lys	Gln
				410					415					420
Thr	Trp	Leu	Glu	Gly	Met	Glu	His	Thr	Leu	Ala	Cys	Val	Pro	Lys
				425					430					435
Gly	Asn	Pro	Ala	Pro	Ala	Leu	Val	Cys	Thr	Trp	Asn	Gly	Val	Val
				440					445					450
Phe	Asp	Leu	Glu	Val	Pro	Gln	Lys	Ala	Thr					
				455					460					

<210> 28

<211> 332

<212> PRT

<213> Homo sapien

<400> 28

Met Leu Pro Arg Leu Leu Leu Leu Ile Cys Ala Pro Leu Cys Glu

1	5	10	15
Pro Ala Glu Leu Phe	Leu Ile Ala Ser	Pro Ser His Pro Thr	Glu
20		25	30
Gly Ser Pro Val Thr	Leu Thr Cys Lys	Met Pro Phe Leu Gln	Ser
35		40	45
Ser Asp Ala Gln Phe	Gln Phe Cys Phe	Phe Arg Asp Thr Arg	Ala
50		55	60
Leu Gly Pro Gly Trp	Ser Ser Ser Pro	Lys Leu Gln Ile Ala	Ala
65		70	75
Met Trp Lys Glu Asp	Thr Gly Ser Tyr	Trp Cys Glu Ala Gln	Thr
80		85	90
Met Ala Ser Lys Val	Leu Arg Ser Arg	Arg Ser Gln Ile Asn	Val
95		100	105
His Ile Pro Val Ser	Arg Pro Ile Leu	Met Leu Arg Ala Pro	Arg
110		115	120
Ala Gln Ala Ala Val	Glu Asp Val Leu	Glu Leu His Cys Glu	Ala
125		130	135
Leu Arg Gly Ser Pro	Pro Ile Leu Tyr	Trp Phe Tyr His Glu	Asp
140		145	150
Ile Thr Leu Gly Ser	Arg Ser Ala Pro	Ser Gly Gly Gly Ala	Ser
155		160	165
Phe Asn Leu Ser Leu	Thr Glu Glu His	Ser Gly Asn Tyr Ser	Cys
170		175	180
Glu Ala Asn Asn Gly	Leu Gly Ala Gln	Arg Ser Glu Ala Val	Thr
185		190	195
Leu Asn Phe Thr Val	Pro Thr Gly Ala	Arg Ser Asn His Leu	Thr
200		205	210
Ser Gly Val Ile Glu	Gly Leu Leu Ser	Thr Leu Gly Pro Ala	Thr
215		220	225
Val Ala Leu Leu Phe	Cys Tyr Gly Leu	Lys Arg Lys Ile Gly	Arg
230		235	240
Arg Ser Ala Arg Asp	Pro Leu Arg Ser	Leu Pro Ala Leu Pro	Gln
245		250	255
Glu Phe Thr Tyr Leu	Asn Ser Pro Thr	Pro Gly Gln Leu Gln	Pro
260		265	270
Ile Tyr Glu Asn Val	Asn Val Val Ser	Gly Asp Glu Val Tyr	Ser
275		280	285
Leu Ala Tyr Tyr Asn	Gln Pro Glu Gln	Glu Ser Val Ala Ala	Glu
290		295	300

Thr Leu Gly Thr His Met Glu Asp Lys Val Ser Leu Asp Ile Tyr
305 310 315

Ser Arg Leu Arg Lys Ala Asn Ile Thr Asp Val Asp Tyr Glu Asp
320 325 330

Ala Met

<210> 29

<211> 515

<212> PRT

<213> Homo sapien

<400> 29

Met Leu Leu Trp Ala Ser Leu Leu Ala Phe Ala Pro Val Cys Gly
1 5 10 15

Gln Ser Ala Ala Ala His Lys Pro Val Ile Ser Val His Pro Pro
20 25 30

Trp Thr Thr Phe Phe Lys Gly Glu Arg Val Thr Leu Thr Cys Asn
35 40 45

Gly Phe Gln Phe Tyr Ala Thr Glu Lys Thr Thr Trp Tyr His Arg
50 55 60

His Tyr Trp Gly Glu Lys Leu Thr Leu Thr Pro Gly Asn Thr Leu
65 70 75

Glu Val Arg Glu Ser Gly Leu Tyr Arg Cys Gln Ala Arg Gly Ser
80 85 90

Pro Arg Ser Asn Pro Val Arg Leu Leu Phe Ser Ser Asp Ser Leu
95 100 105

Ile Leu Gln Ala Pro Tyr Ser Val Phe Glu Gly Asp Thr Leu Val
110 115 120

Leu Arg Cys His Arg Arg Arg Lys Glu Lys Leu Thr Ala Val Lys
125 130 135

Tyr Thr Trp Asn Gly Asn Ile Leu Ser Ile Ser Asn Lys Ser Trp
140 145 150

Asp Leu Leu Ile Pro Gln Ala Ser Ser Asn Asn Asn Gly Asn Tyr
155 160 165

Arg Cys Ile Gly Tyr Gly Asp Glu Asn Asp Val Phe Arg Ser Asn
170 175 180

Phe Lys Ile Ile Lys Ile Gln Glu Leu Phe Pro His Pro Glu Leu
185 190 195

Lys Ala Thr Asp Ser Gln Pro Thr Glu Gly Asn Ser Val Asn Leu
200 205 210

Ser Cys Glu Thr Gln Leu Pro Pro Glu Arg Ser Asp Thr Pro Leu

215	220	225
His Phe Asn Phe Phe Arg Asp Gly Glu	Val Ile Leu Ser Asp Trp	
230	235	240
Ser Thr Tyr Pro Glu Leu Gln Leu Pro	Thr Val Trp Arg Glu Asn	
245	250	255
Ser Gly Ser Tyr Trp Cys Gly Ala Glu	Thr Val Arg Gly Asn Ile	
260	265	270
His Lys His Ser Pro Ser Leu Gln Ile	His Val Gln Arg Ile Pro	
275	280	285
Val Ser Gly Val Leu Leu Glu Thr Gln	Pro Ser Gly Gly Gln Ala	
290	295	300
Val Glu Gly Glu Met Leu Val Leu Val	Cys Ser Val Ala Glu Gly	
305	310	315
Thr Gly Asp Thr Thr Phe Ser Trp His	Arg Glu Asp Met Gln Glu	
320	325	330
Ser Leu Gly Arg Lys Thr Gln Arg Ser	Leu Arg Ala Glu Leu Glu	
335	340	345
Leu Pro Ala Ile Arg Gln Ser His Ala	Gly Gly Tyr Tyr Cys Thr	
350	355	360
Ala Asp Asn Ser Tyr Gly Pro Val Gln	Ser Met Val Leu Asn Val	
365	370	375
Thr Val Arg Glu Thr Pro Gly Asn Arg	Asp Gly Leu Val Ala Ala	
380	385	390
Gly Ala Thr Gly Gly Leu Leu Ser Ala	Leu Leu Leu Ala Val Ala	
395	400	405
Leu Leu Phe His Cys Trp Arg Arg Arg	Lys Ser Gly Val Gly Phe	
410	415	420
Leu Gly Asp Glu Thr Arg Leu Pro Pro	Ala Pro Gly Pro Gly Glu	
425	430	435
Ser Ser His Ser Ile Cys Pro Ala Gln	Val Glu Leu Gln Ser Leu	
440	445	450
Tyr Val Asp Val His Pro Lys Lys Gly	Asp Leu Val Tyr Ser Glu	
455	460	465
Ile Gln Thr Thr Gln Leu Gly Glu Glu	Glu Glu Ala Asn Thr Ser	
470	475	480
Arg Thr Leu Leu Glu Asp Lys Asp Val	Ser Val Val Tyr Ser Glu	
485	490	495
Val Lys Thr Gln His Pro Asp Asn Ser	Ala Gly Lys Ile Ser Ser	
500	505	510

Lys Asp Glu Glu Ser
515

<210> 30
<211> 453
<212> PRT
<213> Homo sapien

<400> 30

Met	Thr	Val	Ile	Arg	Phe	Phe	Pro	Ala	Ala	Ser	Ala	Thr	Lys	Arg	1	5	10	15
Val	Leu	Pro	Pro	Val	Leu	Arg	Val	Ser	Ser	Pro	Arg	Thr	Trp	Asn	20	25	30	
Pro	Asn	Val	Pro	Glu	Ser	Pro	Arg	Ile	Pro	Ala	Pro	Arg	Leu	Pro	35	40	45	
Lys	Arg	Met	Ser	Gly	Ala	Pro	Thr	Ala	Gly	Ala	Ala	Leu	Met	Leu	50	55	60	
Cys	Ala	Ala	Thr	Ala	Val	Leu	Leu	Ser	Ala	Gln	Gly	Gly	Pro	Val	65	70	75	
Gln	Ser	Lys	Ser	Pro	Arg	Phe	Ala	Ser	Trp	Asp	Glu	Met	Asn	Val	80	85	90	
Leu	Ala	His	Gly	Leu	Leu	Gln	Leu	Gly	Gln	Gly	Leu	Arg	Glu	His	95	100	105	
Ala	Glu	Arg	Thr	Arg	Ser	Gln	Leu	Ser	Ala	Leu	Glu	Arg	Arg	Leu	110	115	120	
Ser	Ala	Cys	Gly	Ser	Ala	Cys	Gln	Gly	Thr	Glu	Gly	Ser	Thr	Asp	125	130	135	
Leu	Pro	Leu	Ala	Pro	Glu	Ser	Arg	Val	Asp	Pro	Glu	Val	Leu	His	140	145	150	
Ser	Leu	Gln	Thr	Gln	Leu	Lys	Ala	Gln	Asn	Ser	Arg	Ile	Gln	Gln	155	160	165	
Leu	Phe	His	Lys	Val	Ala	Gln	Gln	Gln	Arg	His	Leu	Glu	Lys	Gln	170	175	180	
His	Leu	Arg	Ile	Gln	His	Leu	Gln	Ser	Gln	Phe	Gly	Leu	Leu	Asp	185	190	195	
His	Lys	His	Leu	Asp	His	Glu	Val	Ala	Lys	Pro	Ala	Arg	Arg	Lys	200	205	210	
Arg	Leu	Pro	Glu	Met	Ala	Gln	Pro	Val	Asp	Pro	Ala	His	Asn	Val	215	220	225	
Ser	Arg	Leu	His	Arg	Leu	Pro	Arg	Asp	Cys	Gln	Glu	Leu	Phe	Gln	230	235	240	
Val	Gly	Glu	Arg	Gln	Ser	Gly	Leu	Phe	Glu	Ile	Gln	Pro	Gln	Gly				

	245		250		255
Ser Pro Pro Phe	Leu Val Asn Cys Lys	Met Thr Ser Asp Gly Gly			
	260	265			270
Trp Thr Val Ile	Gln Arg Arg His Asp	Gly Ser Val Asp Phe Asn			
	275	280			285
Arg Pro Trp Glu	Ala Tyr Lys Ala Gly	Phe Gly Asp Pro His Gly			
	290	295			300
Glu Phe Trp Leu	Gly Leu Glu Lys Val	His Ser Ile Thr Gly Asp			
	305	310			315
Arg Asn Ser Arg	Leu Ala Val Gln Leu	Arg Asp Trp Asp Gly Asn			
	320	325			330
Ala Glu Leu Leu	Gln Phe Ser Val His	Leu Gly Gly Glu Asp Thr			
	335	340			345
Ala Tyr Ser Leu	Gln Leu Thr Ala Pro	Val Ala Gly Gln Leu Gly			
	350	355			360
Ala Thr Thr Val	Pro Pro Ser Gly Leu	Ser Val Pro Phe Ser Thr			
	365	370			375
Trp Asp Gln Asp	His Asp Leu Arg Arg	Asp Lys Asn Cys Ala Lys			
	380	385			390
Ser Leu Ser Gly	Gly Trp Trp Phe Gly	Thr Cys Ser His Ser Asn			
	395	400			405
Leu Asn Gly Gln	Tyr Phe Arg Ser Ile	Pro Gln Gln Arg Gln Lys			
	410	415			420
Leu Lys Lys Gly	Ile Phe Trp Lys Thr	Trp Arg Gly Arg Tyr Tyr			
	425	430			435
Pro Leu Gln Ala	Thr Thr Met Leu Ile	Gln Pro Met Ala Ala Glu			
	440	445			450

Ala Ala Ser

<210> 31
 <211> 124
 <212> PRT
 <213> Homo sapien

<400> 31
 Met Leu Leu Trp Val Ile Leu Leu Val Leu Ala Pro Val Ser Gly
 1 5 10 15
 Gln Phe Ala Arg Thr Pro Arg Pro Ile Ile Phe Leu Gln Pro Pro
 20 25 30
 Trp Thr Thr Val Phe Gln Gly Glu Arg Val Thr Leu Thr Cys Lys
 35 40 45

Gly Phe Arg Phe Tyr Ser Pro Gln Lys Thr Lys Trp Tyr His Arg
 50 55 60
 Tyr Leu Gly Lys Glu Ile Leu Arg Glu Thr Pro Asp Asn Ile Leu
 65 70 75
 Glu Val Gln Glu Ser Gly Glu Tyr Arg Cys Gln Ala Gln Gly Ser
 80 85 90
 Pro Leu Ser Ser Pro Val His Leu Asp Phe Ser Ser Glu Met Gly
 95 100 105
 Phe Pro His Ala Ala Gln Ala Asn Val Glu Leu Leu Gly Ser Ser
 110 115 120
 Asp Leu Leu Thr

<210> 32
 <211> 1752
 <212> PRT
 <213> Homo sapien

<400> 32
 Met Ala Gly Pro Arg Pro Ser Pro Trp Ala Arg Leu Leu Leu Ala
 1 5 10 15
 Ala Leu Ile Ser Val Ser Leu Ser Gly Thr Leu Ala Asn Arg Cys
 20 25 30
 Lys Lys Ala Pro Val Lys Ser Cys Thr Glu Cys Val Arg Val Asp
 35 40 45
 Lys Asp Cys Ala Tyr Cys Thr Asp Glu Met Phe Arg Asp Arg Arg
 50 55 60
 Cys Asn Thr Gln Ala Glu Leu Leu Ala Ala Gly Cys Gln Arg Glu
 65 70 75
 Ser Ile Val Val Met Glu Ser Ser Phe Gln Ile Thr Glu Glu Thr
 80 85 90
 Gln Ile Asp Thr Thr Leu Arg Arg Ser Gln Met Ser Pro Gln Gly
 95 100 105
 Leu Arg Val Arg Leu Arg Pro Gly Glu Glu Arg His Phe Glu Leu
 110 115 120
 Glu Val Phe Glu Pro Leu Glu Ser Pro Val Asp Leu Tyr Ile Leu
 125 130 135
 Met Asp Phe Ser Asn Ser Met Ser Asp Asp Leu Asp Asn Leu Lys
 140 145 150
 Lys Met Gly Gln Asn Leu Ala Arg Val Leu Ser Gln Leu Thr Ser
 155 160 165
 Asp Tyr Thr Ile Gly Phe Gly Lys Phe Val Asp Lys Val Ser Val

170					175					180				
Pro	Gln	Thr	Asp	Met	Arg	Pro	Glu	Lys	Leu	Lys	Glu	Pro	Trp	Pro
				185					190					195
Asn	Ser	Asp	Pro	Pro	Phe	Ser	Phe	Lys	Asn	Val	Ile	Ser	Leu	Thr
				200					205					210
Glu	Asp	Val	Asp	Glu	Phe	Arg	Asn	Lys	Leu	Gln	Gly	Glu	Arg	Ile
				215					220					225
Ser	Gly	Asn	Leu	Asp	Ala	Pro	Glu	Gly	Gly	Phe	Asp	Ala	Ile	Leu
				230					235					240
Gln	Thr	Ala	Val	Cys	Thr	Arg	Asp	Ile	Gly	Trp	Arg	Pro	Asp	Ser
				245					250					255
Thr	His	Leu	Leu	Val	Phe	Ser	Thr	Glu	Ser	Ala	Phe	His	Tyr	Glu
				260					265					270
Ala	Asp	Gly	Ala	Asn	Val	Leu	Ala	Gly	Ile	Met	Ser	Arg	Asn	Asp
				275					280					285
Glu	Arg	Cys	His	Leu	Asp	Thr	Thr	Gly	Thr	Tyr	Thr	Gln	Tyr	Arg
				290					295					300
Thr	Gln	Asp	Tyr	Pro	Ser	Val	Pro	Thr	Leu	Val	Arg	Leu	Leu	Ala
				305					310					315
Lys	His	Asn	Ile	Ile	Pro	Ile	Phe	Ala	Val	Thr	Asn	Tyr	Ser	Tyr
				320					325					330
Ser	Tyr	Tyr	Glu	Lys	Leu	His	Thr	Tyr	Phe	Pro	Val	Ser	Ser	Leu
				335					340					345
Gly	Val	Leu	Gln	Glu	Asp	Ser	Ser	Asn	Ile	Val	Glu	Leu	Leu	Glu
				350					355					360
Glu	Ala	Phe	Asn	Arg	Ile	Arg	Ser	Asn	Leu	Asp	Ile	Arg	Ala	Leu
				365					370					375
Asp	Ser	Pro	Arg	Gly	Leu	Arg	Thr	Glu	Val	Thr	Ser	Lys	Met	Phe
				380					385					390
Gln	Lys	Thr	Arg	Thr	Gly	Ser	Phe	His	Ile	Arg	Arg	Gly	Glu	Val
				395					400					405
Gly	Ile	Tyr	Gln	Val	Gln	Leu	Arg	Ala	Leu	Glu	His	Val	Asp	Gly
				410					415					420
Thr	His	Val	Cys	Gln	Leu	Pro	Glu	Asp	Gln	Lys	Gly	Asn	Ile	His
				425					430					435
Leu	Lys	Pro	Ser	Phe	Ser	Asp	Gly	Leu	Lys	Met	Asp	Ala	Gly	Ile
				440					445					450
Ile	Cys	Asp	Val	Cys	Thr	Cys	Glu	Leu	Gln	Lys	Glu	Val	Arg	Ser
				455					460					465

Ala	Arg	Cys	Ser	Phe	Asn	Gly	Asp	Phe	Val	Cys	Gly	Gln	Cys	Val	470	475	480
Cys	Ser	Glu	Gly	Trp	Ser	Gly	Gln	Thr	Cys	Asn	Cys	Ser	Thr	Gly	485	490	495
Ser	Leu	Ser	Asp	Ile	Gln	Pro	Cys	Leu	Arg	Glu	Gly	Glu	Asp	Lys	500	505	510
Pro	Cys	Ser	Gly	Arg	Gly	Glu	Cys	Gln	Cys	Gly	His	Cys	Val	Cys	515	520	525
Tyr	Gly	Glu	Gly	Arg	Tyr	Glu	Gly	Gln	Phe	Cys	Glu	Tyr	Asp	Asn	530	535	540
Phe	Gln	Cys	Pro	Arg	Thr	Ser	Gly	Phe	Leu	Cys	Asn	Asp	Arg	Gly	545	550	555
Arg	Cys	Ser	Met	Gly	Gln	Cys	Val	Cys	Glu	Pro	Gly	Trp	Thr	Gly	560	565	570
Pro	Ser	Cys	Asp	Cys	Pro	Leu	Ser	Asn	Ala	Thr	Cys	Ile	Asp	Ser	575	580	585
Asn	Gly	Gly	Ile	Cys	Asn	Gly	Arg	Gly	His	Cys	Glu	Cys	Gly	Arg	590	595	600
Cys	His	Cys	His	Gln	Gln	Ser	Leu	Tyr	Thr	Asp	Thr	Ile	Cys	Glu	605	610	615
Ile	Asn	Tyr	Ser	Ala	Ile	His	Pro	Gly	Leu	Cys	Glu	Asp	Leu	Arg	620	625	630
Ser	Cys	Val	Gln	Cys	Gln	Ala	Trp	Gly	Thr	Gly	Glu	Lys	Lys	Gly	635	640	645
Arg	Thr	Cys	Glu	Glu	Cys	Asn	Phe	Lys	Val	Lys	Met	Val	Asp	Glu	650	655	660
Leu	Lys	Arg	Ala	Glu	Glu	Val	Val	Val	Arg	Cys	Ser	Phe	Arg	Asp	665	670	675
Glu	Asp	Asp	Asp	Cys	Thr	Tyr	Ser	Tyr	Thr	Met	Glu	Gly	Asp	Gly	680	685	690
Ala	Pro	Gly	Pro	Asn	Ser	Thr	Val	Leu	Val	His	Lys	Lys	Lys	Asp	695	700	705
Cys	Pro	Pro	Gly	Ser	Phe	Trp	Trp	Leu	Ile	Pro	Leu	Leu	Leu	Leu	710	715	720
Leu	Leu	Pro	Leu	Leu	Ala	Leu	Leu	Leu	Leu	Leu	Cys	Trp	Lys	Tyr	725	730	735
Cys	Ala	Cys	Cys	Lys	Ala	Cys	Leu	Ala	Leu	Leu	Pro	Cys	Cys	Asn	740	745	750
Arg	Gly	His	Met	Val	Gly	Phe	Lys	Glu	Asp	His	Tyr	Met	Leu	Arg			

755					760					765				
Glu	Asn	Leu	Met	Ala	Ser	Asp	His	Leu	Asp	Thr	Pro	Met	Leu	Arg
				770					775					780
Ser	Gly	Asn	Leu	Lys	Gly	Arg	Asp	Val	Val	Arg	Trp	Lys	Val	Thr
				785					790					795
Asn	Asn	Met	Gln	Arg	Pro	Gly	Phe	Ala	Thr	His	Ala	Ala	Ser	Ile
				800					805					810
Asn	Pro	Thr	Glu	Leu	Val	Pro	Tyr	Gly	Leu	Ser	Leu	Arg	Leu	Ala
				815					820					825
Arg	Leu	Cys	Thr	Glu	Asn	Leu	Leu	Lys	Pro	Asp	Thr	Arg	Glu	Cys
				830					835					840
Ala	Gln	Leu	Arg	Gln	Glu	Val	Glu	Glu	Asn	Leu	Asn	Glu	Val	Tyr
				845					850					855
Arg	Gln	Ile	Ser	Gly	Val	His	Lys	Leu	Gln	Gln	Thr	Lys	Phe	Arg
				860					865					870
Gln	Gln	Pro	Asn	Ala	Gly	Lys	Lys	Gln	Asp	His	Thr	Ile	Val	Asp
				875					880					885
Thr	Val	Leu	Met	Ala	Pro	Arg	Ser	Ala	Lys	Pro	Ala	Leu	Leu	Lys
				890					895					900
Leu	Thr	Glu	Lys	Gln	Val	Glu	Gln	Arg	Ala	Phe	His	Asp	Leu	Lys
				905					910					915
Val	Ala	Pro	Gly	Tyr	Tyr	Thr	Leu	Thr	Ala	Asp	Gln	Asp	Ala	Arg
				920					925					930
Gly	Met	Val	Glu	Phe	Gln	Glu	Gly	Val	Glu	Leu	Val	Asp	Val	Arg
				935					940					945
Val	Pro	Leu	Phe	Ile	Arg	Pro	Glu	Asp	Asp	Asp	Glu	Lys	Gln	Leu
				950					955					960
Leu	Val	Glu	Ala	Ile	Asp	Val	Pro	Ala	Gly	Thr	Ala	Thr	Leu	Gly
				965					970					975
Arg	Arg	Leu	Val	Asn	Ile	Thr	Ile	Ile	Lys	Glu	Gln	Ala	Arg	Asp
				980					985					990
Val	Val	Ser	Phe	Glu	Gln	Pro	Glu	Phe	Ser	Val	Ser	Arg	Gly	Asp
				995					1000					1005
Gln	Val	Ala	Arg	Ile	Pro	Val	Ile	Arg	Arg	Val	Leu	Asp	Gly	Gly
				1010					1015					1020
Lys	Ser	Gln	Val	Ser	Tyr	Arg	Thr	Gln	Asp	Gly	Thr	Ala	Gln	Gly
				1025					1030					1035
Asn	Arg	Asp	Tyr	Ile	Pro	Val	Glu	Gly	Glu	Leu	Leu	Phe	Gln	Pro
				1040					1045					1050

Gly Glu Ala Trp Lys Glu Leu Gln Val Lys Leu Leu Glu Leu Gln	1055	1060	1065
Glu Val Asp Ser Leu Leu Arg Gly Arg Gln Val Arg Arg Phe His	1070	1075	1080
Val Gln Leu Ser Asn Pro Lys Phe Gly Ala His Leu Gly Gln Pro	1085	1090	1095
His Ser Thr Thr Ile Ile Ile Arg Asp Pro Asp Glu Leu Asp Arg	1100	1105	1110
Ser Phe Thr Ser Gln Met Leu Ser Ser Gln Pro Pro Pro His Gly	1115	1120	1125
Asp Leu Gly Ala Pro Gln Asn Pro Asn Ala Lys Ala Ala Gly Ser	1130	1135	1140
Arg Lys Ile His Phe Asn Trp Leu Pro Pro Ser Gly Lys Pro Met	1145	1150	1155
Gly Tyr Arg Val Lys Tyr Trp Ile Gln Gly Asp Ser Glu Ser Glu	1160	1165	1170
Ala His Leu Leu Asp Ser Lys Val Pro Ser Val Glu Leu Thr Asn	1175	1180	1185
Leu Tyr Pro Tyr Cys Asp Tyr Glu Met Lys Val Cys Ala Tyr Gly	1190	1195	1200
Ala Gln Gly Glu Gly Pro Tyr Ser Ser Leu Val Ser Cys Arg Thr	1205	1210	1215
His Gln Glu Val Pro Ser Glu Pro Gly Arg Leu Ala Phe Asn Val	1220	1225	1230
Val Ser Ser Thr Val Thr Gln Leu Ser Trp Ala Glu Pro Ala Glu	1235	1240	1245
Thr Asn Gly Glu Ile Thr Ala Tyr Glu Val Cys Tyr Gly Leu Val	1250	1255	1260
Asn Asp Asp Asn Arg Pro Ile Gly Pro Met Lys Lys Val Leu Val	1265	1270	1275
Asp Asn Pro Lys Asn Arg Met Leu Leu Ile Glu Asn Leu Arg Glu	1280	1285	1290
Ser Gln Pro Tyr Arg Tyr Thr Val Lys Ala Arg Asn Gly Ala Gly	1295	1300	1305
Trp Gly Pro Glu Arg Glu Ala Ile Ile Asn Leu Ala Thr Gln Pro	1310	1315	1320
Lys Arg Pro Met Ser Ile Pro Ile Ile Pro Asp Ile Pro Ile Val	1325	1330	1335
Asp Ala Gln Ser Gly Glu Asp Tyr Asp Ser Phe Leu Met Tyr Ser			

1340	1345	1350
Asp Asp Val Leu Arg Ser Pro Ser Gly Ser Gln Arg Pro Ser Val		
1355	1360	1365
Ser Asp Asp Thr Glu His Leu Val Asn Gly Arg Met Asp Phe Ala		
1370	1375	1380
Phe Pro Gly Ser Thr Asn Ser Leu His Arg Met Thr Thr Thr Ser		
1385	1390	1395
Ala Ala Ala Tyr Gly Thr His Leu Ser Pro His Val Pro His Arg		
1400	1405	1410
Val Leu Ser Thr Ser Ser Thr Leu Thr Arg Asp Tyr Asn Ser Leu		
1415	1420	1425
Thr Arg Ser Glu His Ser His Ser Thr Thr Leu Pro Arg Asp Tyr		
1430	1435	1440
Ser Thr Leu Thr Ser Val Ser Ser His Asp Ser Arg Leu Thr Ala		
1445	1450	1455
Gly Val Pro Asp Thr Pro Thr Arg Leu Val Phe Ser Ala Leu Gly		
1460	1465	1470
Pro Thr Ser Leu Arg Val Ser Trp Gln Glu Pro Arg Cys Glu Arg		
1475	1480	1485
Pro Leu Gln Gly Tyr Ser Val Glu Tyr Gln Leu Leu Asn Gly Gly		
1490	1495	1500
Glu Leu His Arg Leu Asn Ile Pro Asn Pro Ala Gln Thr Ser Val		
1505	1510	1515
Val Val Glu Asp Leu Leu Pro Asn His Ser Tyr Val Phe Arg Val		
1520	1525	1530
Arg Ala Gln Ser Gln Glu Gly Trp Gly Arg Glu Arg Glu Gly Val		
1535	1540	1545
Ile Thr Ile Glu Ser Gln Val His Pro Gln Ser Pro Leu Cys Pro		
1550	1555	1560
Leu Pro Gly Ser Ala Phe Thr Leu Ser Thr Pro Ser Ala Pro Gly		
1565	1570	1575
Pro Leu Val Phe Thr Ala Leu Ser Pro Asp Ser Leu Gln Leu Ser		
1580	1585	1590
Trp Glu Arg Pro Arg Arg Pro Asn Gly Asp Ile Val Gly Tyr Leu		
1595	1600	1605
Val Thr Cys Glu Met Ala Gln Gly Gly Gly Pro Ala Thr Ala Phe		
1610	1615	1620
Arg Val Asp Gly Asp Ser Pro Glu Ser Arg Leu Thr Val Pro Gly		
1625	1630	1635

Leu Ser Glu Asn Val Pro Tyr Lys Phe Lys Val Gln Ala Arg Thr
1640 1645 1650

Thr Glu Gly Phe Gly Pro Glu Arg Glu Gly Ile Ile Thr Ile Glu
1655 1660 1665

Ser Gln Asp Gly Gly Pro Phe Pro Gln Leu Gly Ser Arg Ala Gly
1670 1675 1680

Leu Phe Gln His Pro Leu Gln Ser Glu Tyr Ser Ser Ile Thr Thr
1685 1690 1695

Thr His Thr Ser Ala Thr Glu Pro Phe Leu Val Asp Gly Pro Thr
1700 1705 1710

Leu Gly Ala Gln His Leu Glu Ala Gly Gly Ser Leu Thr Arg His
1715 1720 1725

Val Thr Gln Glu Phe Val Ser Arg Thr Leu Thr Thr Ser Gly Thr
1730 1735 1740

Leu Ser Thr His Met Asp Gln Gln Phe Phe Gln Thr
1745 1750

<210> 33

<211> 1336

<212> PRT

<213> Homo sapien

<400> 33

Met Thr Leu Asp Arg Pro Gly Glu Gly Ala Thr Met Leu Lys Thr
1 5 10 15

Phe Thr Val Leu Leu Phe Cys Ile Arg Met Ser Leu Gly Met Thr
20 25 30

Ser Ile Val Met Asp Pro Gln Pro Glu Leu Trp Ile Glu Ser Asn
35 40 45

Tyr Pro Gln Ala Pro Trp Glu Asn Ile Thr Leu Trp Cys Arg Ser
50 55 60

Pro Ser Arg Ile Ser Ser Lys Phe Leu Leu Leu Lys Asp Lys Thr
65 70 75

Gln Met Thr Trp Ile Arg Pro Ser His Lys Thr Phe Gln Val Ser
80 85 90

Phe Leu Ile Gly Ala Leu Thr Glu Ser Asn Ala Gly Leu Tyr Arg
95 100 105

Cys Cys Tyr Trp Lys Glu Thr Gly Trp Ser Lys Pro Ser Lys Val
110 115 120

Leu Glu Leu Glu Ala Pro Gly Gln Leu Pro Lys Pro Ile Phe Trp
125 130 135

Ile Gln Ala Glu Thr Pro Ala Leu Pro Gly Cys Asn Val Asn Ile

140	145	150
Leu Cys His Gly Trp	Leu Gln Asp Leu Val Phe Met Leu Phe Lys	
155	160	165
Glu Gly Tyr Ala Glu	Pro Val Asp Tyr Gln Val Pro Thr Gly Thr	
170	175	180
Met Ala Ile Phe Ser	Ile Asp Asn Leu Thr Pro Glu Asp Glu Gly	
185	190	195
Val Tyr Ile Cys Arg	Thr His Ile Gln Met Leu Pro Thr Leu Trp	
200	205	210
Ser Glu Pro Ser Asn	Pro Leu Lys Leu Val Val Ala Gly Leu Tyr	
215	220	225
Pro Lys Pro Thr Leu	Thr Ala His Pro Gly Pro Ile Met Ala Pro	
230	235	240
Gly Glu Ser Leu Asn	Leu Arg Cys Gln Gly Pro Ile Tyr Gly Met	
245	250	255
Thr Phe Ala Leu Met	Arg Val Glu Asp Leu Glu Lys Ser Phe Tyr	
260	265	270
His Lys Lys Thr Ile	Lys Asn Glu Ala Asn Phe Phe Phe Gln Ser	
275	280	285
Leu Lys Ile Gln Asp	Thr Gly His Tyr Leu Cys Phe Tyr Tyr Asp	
290	295	300
Ala Ser Tyr Arg Gly	Ser Leu Leu Ser Asp Val Leu Lys Ile Trp	
305	310	315
Val Thr Asp Thr Phe	Pro Lys Thr Trp Leu Leu Ala Arg Pro Ser	
320	325	330
Ala Val Val Gln Met	Gly Gln Asn Val Ser Leu Arg Cys Arg Gly	
335	340	345
Pro Val Asp Gly Val	Gly Leu Ala Leu Tyr Lys Lys Gly Glu Asp	
350	355	360
Lys Pro Leu Gln Phe	Leu Asp Ala Thr Ser Ile Asp Asp Asn Thr	
365	370	375
Ser Phe Phe Leu Asn	Asn Val Thr Tyr Ser Asp Thr Gly Ile Tyr	
380	385	390
Ser Cys His Tyr Leu	Leu Thr Trp Lys Thr Ser Ile Arg Met Pro	
395	400	405
Ser His Asn Thr Val	Glu Leu Met Val Val Asp Lys Pro Pro Lys	
410	415	420
Pro Ser Leu Ser Ala	Trp Pro Ser Thr Val Phe Lys Leu Gly Lys	
425	430	435

Ala	Ile	Thr	Leu	Gln	Cys	Arg	Val	Ser	His	Pro	Val	Leu	Glu	Phe	440	445	450
Ser	Leu	Glu	Trp	Glu	Glu	Arg	Glu	Thr	Phe	Gln	Arg	Phe	Ser	Val	455	460	465
Asn	Gly	Asp	Phe	Ile	Ile	Ser	Asn	Val	Asp	Gly	Lys	Gly	Thr	Gly	470	475	480
Thr	Tyr	Ser	Cys	Ser	Tyr	Arg	Val	Glu	Thr	His	Pro	Asn	Met	Trp	485	490	495
Ser	His	Arg	Ser	Glu	Pro	Leu	Lys	Leu	Met	Gly	Pro	Ala	Gly	Tyr	500	505	510
Leu	Thr	Trp	Asn	Tyr	Val	Leu	Asn	Glu	Ala	Ile	Arg	Leu	Ser	Leu	515	520	525
Ile	Met	Gln	Leu	Val	Ala	Leu	Leu	Leu	Val	Val	Leu	Trp	Ile	Arg	530	535	540
Trp	Lys	Cys	Arg	Arg	Leu	Arg	Ile	Arg	Glu	Ala	Trp	Leu	Leu	Gly	545	550	555
Thr	Ala	Gln	Gly	Val	Thr	Met	Leu	Phe	Ile	Val	Thr	Ala	Leu	Leu	560	565	570
Cys	Cys	Gly	Leu	Cys	Asn	Gly	Val	Leu	Ile	Glu	Glu	Thr	Glu	Ile	575	580	585
Val	Met	Pro	Thr	Pro	Lys	Pro	Glu	Leu	Trp	Ala	Glu	Thr	Asn	Phe	590	595	600
Pro	Leu	Ala	Pro	Trp	Lys	Asn	Leu	Thr	Leu	Trp	Cys	Arg	Ser	Pro	605	610	615
Ser	Gly	Ser	Thr	Lys	Glu	Phe	Val	Leu	Leu	Lys	Asp	Gly	Thr	Gly	620	625	630
Trp	Ile	Ala	Thr	Arg	Pro	Ala	Ser	Glu	Gln	Val	Arg	Ala	Ala	Phe	635	640	645
Pro	Leu	Gly	Ala	Leu	Thr	Gln	Ser	His	Thr	Gly	Ser	Tyr	His	Cys	650	655	660
His	Ser	Trp	Glu	Glu	Met	Ala	Val	Ser	Glu	Pro	Ser	Glu	Ala	Leu	665	670	675
Glu	Leu	Val	Gly	Thr	Asp	Ile	Leu	Pro	Lys	Pro	Val	Ile	Ser	Ala	680	685	690
Ser	Pro	Thr	Ile	Arg	Gly	Gln	Glu	Leu	Gln	Leu	Arg	Cys	Lys	Gly	695	700	705
Trp	Leu	Ala	Gly	Met	Gly	Phe	Ala	Leu	Tyr	Lys	Glu	Gly	Glu	Gln	710	715	720
Glu	Pro	Val	Gln	Gln	Leu	Gly	Ala	Val	Gly	Arg	Glu	Ala	Phe	Phe			

725	730	735
Thr Ile Gln Arg Met Glu Asp Lys Asp	Glu Gly Asn Tyr Ser Cys	
740	745	750
Arg Thr His Thr Glu Lys Leu Pro Phe	Lys Trp Ser Glu Pro Ser	
755	760	765
Glu Pro Leu Glu Leu Val Ile Lys Glu	Met Tyr Pro Lys Pro Phe	
770	775	780
Phe Lys Thr Trp Ala Ser Pro Val Val	Thr Pro Gly Ala Arg Val	
785	790	795
Thr Phe Asn Cys Ser Thr Pro His Gln	His Met Ser Phe Ile Leu	
800	805	810
Tyr Lys Asp Gly Ser Glu Ile Ala Ser	Ser Asp Arg Ser Trp Ala	
815	820	825
Ser Pro Gly Ala Ser Ala Ala His Phe	Leu Ile Ile Ser Val Gly	
830	835	840
Ile Gly Asp Gly Gly Asn Tyr Ser Cys	Arg Tyr Tyr Asp Phe Ser	
845	850	855
Ile Trp Ser Glu Pro Ser Asp Pro Val	Glu Leu Val Val Thr Glu	
860	865	870
Phe Tyr Pro Lys Pro Thr Leu Leu Ala	Gln Pro Gly Pro Val Val	
875	880	885
Phe Pro Gly Lys Ser Val Ile Leu Arg	Cys Gln Gly Thr Phe Gln	
890	895	900
Gly Met Arg Phe Ala Leu Leu Gln Glu	Gly Ala His Val Pro Leu	
905	910	915
Gln Phe Arg Ser Val Ser Gly Asn Ser	Ala Asp Phe Leu Leu His	
920	925	930
Thr Val Gly Ala Glu Asp Ser Gly Asn	Tyr Ser Cys Ile Tyr Tyr	
935	940	945
Glu Thr Thr Met Ser Asn Arg Gly Ser	Tyr Leu Ser Met Pro Leu	
950	955	960
Met Ile Trp Val Thr Asp Thr Phe Pro	Lys Pro Trp Leu Phe Ala	
965	970	975
Glu Pro Ser Ser Val Val Pro Met Gly	Gln Asn Val Thr Leu Trp	
980	985	990
Cys Arg Gly Pro Val His Gly Val Gly	Tyr Ile Leu His Lys Glu	
995	1000	1005
Gly Glu Ala Thr Ser Met Gln Leu Trp	Gly Ser Thr Ser Asn Asp	
1010	1015	1020

Gly	Ala	Phe	Pro	Ile	Thr	Asn	Ile	Ser	Gly	Thr	Ser	Met	Gly	Arg			
			1025						1030					1035			
Tyr	Ser	Cys	Cys	Tyr	His	Pro	Asp	Trp	Thr	Ser	Ser	Ile	Lys	Ile			
			1040						1045					1050			
Gln	Pro	Ser	Asn	Thr	Leu	Glu	Leu	Leu	Val	Thr	Gly	Leu	Leu	Pro			
			1055						1060					1065			
Lys	Pro	Ser	Leu	Leu	Ala	Gln	Pro	Gly	Pro	Met	Val	Ala	Pro	Gly			
			1070						1075					1080			
Glu	Asn	Met	Thr	Leu	Gln	Cys	Gln	Gly	Glu	Leu	Pro	Asp	Ser	Thr			
			1085						1090					1095			
Phe	Val	Leu	Leu	Lys	Glu	Gly	Ala	Gln	Glu	Pro	Leu	Glu	Gln	Gln			
			1100						1105					1110			
Arg	Pro	Ser	Gly	Tyr	Arg	Ala	Asp	Phe	Trp	Met	Pro	Ala	Val	Arg			
			1115						1120					1125			
Gly	Glu	Asp	Ser	Gly	Ile	Tyr	Ser	Cys	Val	Tyr	Tyr	Leu	Asp	Ser			
			1130						1135					1140			
Thr	Pro	Phe	Ala	Ala	Ser	Asn	His	Ser	Asp	Ser	Leu	Glu	Ile	Trp			
			1145						1150					1155			
Val	Thr	Asp	Lys	Pro	Pro	Lys	Pro	Ser	Leu	Ser	Ala	Trp	Pro	Ser			
			1160						1165					1170			
Thr	Met	Phe	Lys	Leu	Gly	Lys	Asp	Ile	Thr	Leu	Gln	Cys	Arg	Gly			
			1175						1180					1185			
Pro	Leu	Pro	Gly	Val	Glu	Phe	Val	Leu	Glu	His	Asp	Gly	Glu	Glu			
			1190						1195					1200			
Ala	Pro	Gln	Gln	Phe	Ser	Glu	Asp	Gly	Asp	Phe	Val	Ile	Asn	Asn			
			1205						1210					1215			
Val	Glu	Gly	Lys	Gly	Ile	Gly	Asn	Tyr	Ser	Cys	Ser	Tyr	Arg	Leu			
			1220						1225					1230			
Gln	Ala	Tyr	Pro	Asp	Ile	Trp	Ser	Glu	Pro	Ser	Asp	Pro	Leu	Glu			
			1235						1240					1245			
Leu	Val	Gly	Ala	Ala	Gly	Pro	Val	Ala	Gln	Glu	Cys	Thr	Val	Gly			
			1250						1255					1260			
Asn	Ile	Val	Arg	Ser	Ser	Leu	Ile	Val	Val	Val	Val	Val	Ala	Leu			
			1265						1270					1275			
Gly	Val	Val	Leu	Ala	Ile	Glu	Trp	Lys	Lys	Trp	Pro	Arg	Leu	Arg			
			1280						1285					1290			
Thr	Arg	Gly	Ser	Glu	Thr	Asp	Gly	Arg	Asp	Gln	Thr	Ile	Ala	Leu			
			1295						1300					1305			
Glu	Glu	Cys	Asn	Gln	Glu	Gly	Glu	Pro	Gly	Thr	Pro	Ala	Asn	Ser			

1310	1315	1320
Pro Ser Ser Thr Ser Gln Arg Ile Ser Val Glu Leu Pro Val Pro		
1325	1330	1335

Ile

<210> 34
 <211> 1907
 <212> PRT
 <213> Homo sapien

<400> 34

Met	Ala	Pro	Glu	Pro	Ala	Pro	Gly	Arg	Thr	Met	Val	Pro	Leu	Val
1				5					10					15
Pro	Ala	Leu	Val	Met	Leu	Gly	Leu	Val	Ala	Gly	Ala	His	Gly	Asp
				20					25					30
Ser	Lys	Pro	Val	Phe	Ile	Lys	Val	Pro	Glu	Asp	Gln	Thr	Gly	Leu
				35					40					45
Ser	Gly	Gly	Val	Ala	Ser	Phe	Val	Cys	Gln	Ala	Thr	Gly	Glu	Pro
				50					55					60
Lys	Pro	Arg	Ile	Thr	Trp	Met	Lys	Lys	Gly	Lys	Lys	Val	Ser	Ser
				65					70					75
Gln	Arg	Phe	Glu	Val	Ile	Glu	Phe	Asp	Asp	Gly	Ala	Gly	Ser	Val
				80					85					90
Leu	Arg	Ile	Gln	Pro	Leu	Arg	Val	Gln	Arg	Asp	Glu	Ala	Ile	Tyr
				95					100					105
Glu	Cys	Thr	Ala	Thr	Asn	Ser	Leu	Gly	Glu	Ile	Asn	Thr	Ser	Ala
				110					115					120
Lys	Leu	Ser	Val	Leu	Glu	Glu	Glu	Gln	Leu	Pro	Pro	Gly	Phe	Pro
				125					130					135
Ser	Ile	Asp	Met	Gly	Pro	Gln	Leu	Lys	Val	Val	Glu	Lys	Ala	Arg
				140					145					150
Thr	Ala	Thr	Met	Leu	Cys	Ala	Ala	Gly	Gly	Asn	Pro	Asp	Pro	Glu
				155					160					165
Ile	Ser	Trp	Phe	Lys	Asp	Phe	Leu	Pro	Val	Asp	Pro	Ala	Thr	Ser
				170					175					180
Asn	Gly	Arg	Ile	Lys	Gln	Leu	Arg	Ser	Gly	Ala	Leu	Gln	Ile	Glu
				185					190					195
Ser	Ser	Glu	Glu	Ser	Asp	Gln	Gly	Lys	Tyr	Glu	Cys	Val	Ala	Thr
				200					205					210
Asn	Ser	Ala	Gly	Thr	Arg	Tyr	Ser	Ala	Pro	Ala	Asn	Leu	Tyr	Val
				215					220					225

Arg	Val	Arg	Arg	Val	Ala	Pro	Arg	Phe	Ser	Ile	Pro	Pro	Ser	Ser	
				230					235					240	
Gln	Glu	Val	Met	Pro	Gly	Gly	Ser	Val	Asn	Leu	Thr	Cys	Val	Ala	
				245					250					255	
Val	Gly	Ala	Pro	Met	Pro	Tyr	Val	Lys	Trp	Met	Met	Gly	Ala	Glu	
				260					265					270	
Glu	Leu	Thr	Lys	Glu	Asp	Glu	Met	Pro	Val	Gly	Arg	Asn	Val	Leu	
				275					280					285	
Glu	Leu	Ser	Asn	Val	Val	Arg	Ser	Ala	Asn	Tyr	Thr	Cys	Val	Ala	
				290					295					300	
Ile	Ser	Ser	Leu	Gly	Met	Ile	Glu	Ala	Thr	Ala	Gln	Val	Thr	Val	
				305					310					315	
Lys	Ala	Leu	Pro	Lys	Pro	Pro	Ile	Asp	Leu	Val	Val	Thr	Glu	Thr	
				320					325					330	
Thr	Ala	Thr	Ser	Val	Thr	Leu	Thr	Trp	Asp	Ser	Gly	Asn	Ser	Glu	
				335					340					345	
Pro	Val	Thr	Tyr	Tyr	Gly	Ile	Gln	Tyr	Arg	Ala	Ala	Gly	Thr	Glu	
				350					355					360	
Gly	Pro	Phe	Gln	Glu	Val	Asp	Gly	Val	Ala	Thr	Thr	Arg	Tyr	Ser	
				365					370					375	
Ile	Gly	Gly	Leu	Ser	Pro	Phe	Ser	Glu	Tyr	Ala	Phe	Arg	Val	Leu	
				380					385					390	
Ala	Val	Asn	Ser	Ile	Gly	Arg	Gly	Pro	Pro	Ser	Glu	Ala	Val	Arg	
				395					400					405	
Ala	Arg	Thr	Gly	Glu	Gln	Ala	Pro	Ser	Ser	Pro	Pro	Arg	Arg	Val	
				410					415					420	
Gln	Ala	Arg	Met	Leu	Ser	Ala	Ser	Thr	Met	Leu	Val	Gln	Trp	Glu	
				425					430					435	
Pro	Pro	Glu	Glu	Pro	Asn	Gly	Leu	Val	Arg	Gly	Tyr	Arg	Val	Tyr	
				440					445					450	
Tyr	Thr	Pro	Asp	Ser	Arg	Arg	Pro	Pro	Asn	Ala	Trp	His	Lys	His	
				455					460					465	
Asn	Thr	Asp	Ala	Gly	Leu	Leu	Thr	Thr	Val	Gly	Ser	Leu	Leu	Pro	
				470					475					480	
Gly	Ile	Thr	Tyr	Ser	Leu	Arg	Val	Leu	Ala	Phe	Thr	Ala	Val	Gly	
				485					490					495	
Asp	Gly	Pro	Pro	Ser	Pro	Thr	Ile	Gln	Val	Lys	Thr	Gln	Gln	Gly	
				500					505					510	
Val	Pro	Ala	Gln	Pro	Ala	Asp	Phe	Gln	Ala	Glu	Val	Glu	Ser	Asp	

515					520					525				
Thr	Arg	Ile	Gln	Leu	Ser	Trp	Leu	Leu	Pro	Pro	Gln	Glu	Arg	Ile
				530					535					540
Ile	Met	Tyr	Glu	Leu	Val	Tyr	Trp	Ala	Ala	Glu	Asp	Glu	Asp	Gln
				545					550					555
Gln	His	Lys	Val	Thr	Phe	Asp	Pro	Thr	Ser	Ser	Tyr	Thr	Leu	Glu
				560					565					570
Asp	Leu	Lys	Pro	Asp	Thr	Leu	Tyr	Arg	Phe	Gln	Leu	Ala	Ala	Arg
				575					580					585
Ser	Asp	Met	Gly	Val	Gly	Val	Phe	Thr	Pro	Thr	Ile	Glu	Ala	Arg
				590					595					600
Thr	Ala	Gln	Ser	Thr	Pro	Ser	Ala	Pro	Pro	Gln	Lys	Val	Met	Cys
				605					610					615
Val	Ser	Met	Gly	Ser	Thr	Thr	Val	Arg	Val	Ser	Trp	Val	Pro	Pro
				620					625					630
Pro	Ala	Asp	Ser	Arg	Asn	Gly	Val	Ile	Thr	Gln	Tyr	Ser	Val	Ala
				635					640					645
His	Glu	Ala	Val	Asp	Gly	Glu	Asp	Arg	Gly	Arg	His	Val	Val	Asp
				650					655					660
Gly	Ile	Ser	Arg	Glu	His	Ser	Ser	Trp	Asp	Leu	Val	Gly	Leu	Glu
				665					670					675
Lys	Trp	Thr	Glu	Tyr	Arg	Val	Trp	Val	Arg	Ala	His	Thr	Asp	Val
				680					685					690
Gly	Pro	Gly	Pro	Glu	Ser	Ser	Pro	Val	Leu	Val	Arg	Thr	Asp	Glu
				695					700					705
Asp	Val	Pro	Ser	Gly	Pro	Pro	Arg	Lys	Val	Glu	Val	Glu	Pro	Leu
				710					715					720
Asn	Ser	Thr	Ala	Val	His	Val	Tyr	Trp	Lys	Leu	Pro	Val	Pro	Ser
				725					730					735
Lys	Gln	His	Gly	Gln	Ile	Arg	Gly	Tyr	Gln	Val	Thr	Tyr	Val	Arg
				740					745					750
Leu	Glu	Asn	Gly	Glu	Pro	Arg	Gly	Leu	Pro	Ile	Ile	Gln	Asp	Val
				755					760					765
Met	Leu	Ala	Glu	Ala	Gln	Trp	Arg	Pro	Glu	Glu	Ser	Glu	Asp	Tyr
				770					775					780
Glu	Thr	Thr	Ile	Ser	Gly	Leu	Thr	Pro	Glu	Thr	Thr	Tyr	Ser	Val
				785					790					795
Thr	Val	Ala	Ala	Tyr	Thr	Thr	Lys	Gly	Asp	Gly	Ala	Arg	Ser	Lys
				800					805					810

Pro	Lys	Ile	Val	Thr	Thr	Thr	Gly	Ala	Val	Pro	Gly	Arg	Pro	Thr	815	820	825
Met	Met	Ile	Ser	Thr	Thr	Ala	Met	Asn	Thr	Ala	Leu	Leu	Gln	Trp	830	835	840
His	Pro	Pro	Lys	Glu	Leu	Pro	Gly	Glu	Leu	Leu	Gly	Tyr	Arg	Leu	845	850	855
Gln	Tyr	Cys	Arg	Ala	Asp	Glu	Ala	Arg	Pro	Asn	Thr	Ile	Asp	Phe	860	865	870
Gly	Lys	Asp	Asp	Gln	His	Phe	Thr	Val	Thr	Gly	Leu	His	Lys	Gly	875	880	885
Thr	Thr	Tyr	Ile	Phe	Arg	Leu	Ala	Ala	Lys	Asn	Arg	Ala	Gly	Leu	890	895	900
Gly	Glu	Glu	Phe	Glu	Lys	Glu	Ile	Arg	Thr	Pro	Glu	Asp	Leu	Pro	905	910	915
Ser	Gly	Phe	Pro	Gln	Asn	Leu	His	Val	Thr	Gly	Leu	Thr	Thr	Ser	920	925	930
Thr	Thr	Glu	Leu	Ala	Trp	Asp	Pro	Pro	Val	Leu	Ala	Glu	Arg	Asn	935	940	945
Gly	Arg	Ile	Ile	Ser	Tyr	Thr	Val	Val	Phe	Arg	Asp	Ile	Asn	Ser	950	955	960
Gln	Gln	Glu	Leu	Gln	Asn	Ile	Thr	Thr	Asp	Thr	Arg	Phe	Thr	Leu	965	970	975
Thr	Gly	Leu	Lys	Pro	Asp	Thr	Thr	Tyr	Asp	Ile	Lys	Val	Arg	Ala	980	985	990
Trp	Thr	Ser	Lys	Gly	Ser	Gly	Pro	Leu	Ser	Pro	Ser	Ile	Gln	Ser	995	1000	1005
Arg	Thr	Met	Pro	Val	Glu	Gln	Val	Phe	Ala	Lys	Asn	Phe	Arg	Val	1010	1015	1020
Ala	Ala	Ala	Met	Lys	Thr	Ser	Val	Leu	Leu	Ser	Trp	Glu	Val	Pro	1025	1030	1035
Asp	Ser	Tyr	Lys	Ser	Ala	Val	Pro	Phe	Lys	Ile	Leu	Tyr	Asn	Gly	1040	1045	1050
Gln	Ser	Val	Glu	Val	Asp	Gly	His	Ser	Met	Arg	Lys	Leu	Ile	Ala	1055	1060	1065
Asp	Leu	Gln	Pro	Asn	Thr	Glu	Tyr	Ser	Phe	Val	Leu	Met	Asn	Arg	1070	1075	1080
Gly	Ser	Ser	Ala	Gly	Gly	Leu	Gln	His	Leu	Val	Ser	Ile	Arg	Thr	1085	1090	1095
Ala	Pro	Asp	Leu	Leu	Pro	His	Lys	Pro	Leu	Pro	Ala	Ser	Ala	Tyr			

1100	1105	1110
Ile Glu Asp Gly Arg Phe Asp Leu Ser Met	Pro His Val Gln Asp	
1115	1120	1125
Pro Ser Leu Val Arg Trp Phe Tyr Ile Val	Val Val Pro Ile Asp	
1130	1135	1140
Arg Val Gly Gly Ser Met Leu Thr Pro Arg	Trp Ser Thr Pro Glu	
1145	1150	1155
Glu Leu Glu Leu Asp Glu Leu Leu Glu Ala	Ile Glu Gln Gly Gly	
1160	1165	1170
Glu Glu Gln Arg Arg Arg Arg Arg Gln Ala	Glu Arg Leu Lys Pro	
1175	1180	1185
Tyr Val Ala Ala Gln Leu Asp Val Leu Pro	Glu Thr Phe Thr Leu	
1190	1195	1200
Gly Asp Lys Lys Asn Tyr Arg Gly Phe Tyr	Asn Arg Pro Leu Ser	
1205	1210	1215
Pro Asp Leu Ser Tyr Gln Cys Phe Val Leu	Ala Ser Leu Lys Glu	
1220	1225	1230
Pro Met Asp Gln Lys Arg Tyr Ala Ser Ser	Pro Tyr Ser Asp Glu	
1235	1240	1245
Ile Val Val Gln Val Thr Pro Ala Gln Gln	Gln Glu Glu Pro Glu	
1250	1255	1260
Met Leu Trp Val Thr Gly Pro Val Leu Ala	Val Ile Leu Ile Ile	
1265	1270	1275
Leu Ile Val Ile Ala Ile Leu Leu Phe Lys	Arg Lys Arg Thr His	
1280	1285	1290
Ser Pro Ser Ser Lys Asp Glu Gln Ser Ile	Gly Leu Lys Asp Ser	
1295	1300	1305
Leu Leu Ala His Ser Ser Asp Pro Val Glu	Met Arg Arg Leu Asn	
1310	1315	1320
Tyr Gln Thr Pro Gly Met Arg Asp His Pro	Pro Ile Pro Ile Thr	
1325	1330	1335
Asp Leu Ala Asp Asn Ile Glu Arg Leu Lys	Ala Asn Asp Gly Leu	
1340	1345	1350
Lys Phe Ser Gln Glu Tyr Glu Ser Ile Asp	Pro Gly Gln Gln Phe	
1355	1360	1365
Thr Trp Glu Asn Ser Asn Leu Glu Val Asn	Lys Pro Lys Asn Arg	
1370	1375	1380
Tyr Ala Asn Val Ile Ala Tyr Asp His Ser	Arg Val Ile Leu Thr	
1385	1390	1395

Ser Ile Asp Gly Val	Pro Gly Ser Asp Tyr	Ile Asn Ala Asn Tyr
1400	1405	1410
Ile Asp Gly Tyr Arg	Lys Gln Asn Ala Tyr	Ile Ala Thr Gln Gly
1415	1420	1425
Pro Leu Pro Glu Thr	Met Gly Asp Phe Trp	Arg Met Val Trp Glu
1430	1435	1440
Gln Arg Thr Ala Thr	Val Val Met Met Thr	Arg Leu Glu Glu Lys
1445	1450	1455
Ser Arg Val Lys Cys	Asp Gln Tyr Trp Pro	Ala Arg Gly Thr Glu
1460	1465	1470
Thr Cys Gly Leu Ile	Gln Val Thr Leu Leu	Asp Thr Val Glu Leu
1475	1480	1485
Ala Thr Tyr Thr Val	Arg Thr Phe Ala Leu	His Lys Ser Gly Ser
1490	1495	1500
Ser Glu Lys Arg Glu	Leu Arg Gln Phe Gln	Phe Met Ala Trp Pro
1505	1510	1515
Asp His Gly Val Pro	Glu Tyr Pro Thr Pro	Ile Leu Ala Phe Leu
1520	1525	1530
Arg Arg Val Lys Ala	Cys Asn Pro Leu Asp	Ala Gly Pro Met Val
1535	1540	1545
Val His Cys Ser Ala	Gly Val Gly Arg Thr	Gly Cys Phe Ile Val
1550	1555	1560
Ile Asp Ala Met Leu	Glu Arg Met Lys His	Glu Lys Thr Val Asp
1565	1570	1575
Ile Tyr Gly His Val	Thr Cys Met Arg Ser	Gln Arg Asn Tyr Met
1580	1585	1590
Val Gln Thr Glu Asp	Gln Tyr Val Phe Ile	His Glu Ala Leu Leu
1595	1600	1605
Glu Ala Ala Thr Cys	Gly His Thr Glu Val	Pro Ala Arg Asn Leu
1610	1615	1620
Tyr Ala His Ile Gln	Lys Leu Gly Gln Val	Pro Pro Gly Glu Ser
1625	1630	1635
Val Thr Ala Met Glu	Leu Glu Phe Lys Leu	Leu Ala Ser Ser Lys
1640	1645	1650
Ala His Thr Ser Arg	Phe Ile Ser Ala Asn	Leu Pro Cys Asn Lys
1655	1660	1665
Phe Lys Asn Arg Leu	Val Asn Ile Met Pro	Tyr Glu Leu Thr Arg
1670	1675	1680
Val Cys Leu Gln Pro	Ile Arg Gly Val Glu	Gly Ser Asp Tyr Ile

1685	1690	1695
Asn Ala Ser Phe Leu Asp Gly Tyr Arg Gln Gln Lys Ala Tyr Ile 1700	1705	1710
Ala Thr Gln Gly Pro Leu Ala Glu Ser Thr Glu Asp Phe Trp Arg 1715	1720	1725
Met Leu Trp Glu His Asn Ser Thr Ile Ile Val Met Leu Thr Lys 1730	1735	1740
Leu Arg Glu Met Gly Arg Glu Lys Cys His Gln Tyr Trp Pro Ala 1745	1750	1755
Glu Arg Ser Ala Arg Tyr Gln Tyr Phe Val Val Asp Pro Met Ala 1760	1765	1770
Glu Tyr Asn Met Pro Gln Tyr Ile Leu Arg Glu Phe Lys Val Thr 1775	1780	1785
Asp Ala Arg Asp Gly Gln Ser Arg Thr Ile Arg Gln Phe Gln Phe 1790	1795	1800
Thr Asp Trp Pro Glu Gln Gly Val Pro Lys Thr Gly Glu Gly Phe 1805	1810	1815
Ile Asp Phe Ile Gly Gln Val His Lys Thr Lys Glu Gln Phe Gly 1820	1825	1830
Gln Asp Gly Pro Ile Thr Val His Cys Ser Ala Gly Val Gly Arg 1835	1840	1845
Thr Gly Val Phe Ile Thr Leu Ser Ile Val Leu Glu Arg Met Arg 1850	1855	1860
Tyr Glu Gly Val Val Asp Met Phe Gln Thr Val Lys Thr Leu Arg 1865	1870	1875
Thr Gln Arg Pro Ala Met Val Gln Thr Glu Asp Gln Tyr Gln Leu 1880	1885	1890
Cys Tyr Arg Ala Ala Leu Glu Tyr Leu Gly Ser Phe Asp His Tyr 1895	1900	1905

Ala Thr

<210> 35
 <211> 310
 <212> PRT
 <213> Homo sapien

<400> 35
 Met Arg Arg Ala Ala Leu Trp Leu Trp Leu Cys Ala Leu Ala Leu
 1 5 10 15
 Ser Leu Gln Leu Ala Leu Pro Gln Ile Val Ala Thr Asn Leu Pro
 20 25 30

Pro	Glu	Asp	Gln	Asp	Gly	Ser	Gly	Asp	Asp	Ser	Asp	Asn	Phe	Ser	35	40	45
Gly	Ser	Gly	Ala	Gly	Ala	Leu	Gln	Asp	Ile	Thr	Leu	Ser	Gln	Gln	50	55	60
Thr	Pro	Ser	Thr	Trp	Lys	Asp	Thr	Gln	Leu	Leu	Thr	Ala	Ile	Pro	65	70	75
Thr	Ser	Pro	Glu	Pro	Thr	Gly	Leu	Glu	Ala	Thr	Ala	Ala	Ser	Thr	80	85	90
Ser	Thr	Leu	Pro	Ala	Gly	Glu	Gly	Pro	Lys	Glu	Gly	Glu	Ala	Val	95	100	105
Val	Leu	Pro	Glu	Val	Glu	Pro	Gly	Leu	Thr	Ala	Arg	Glu	Gln	Glu	110	115	120
Ala	Thr	Pro	Arg	Pro	Arg	Glu	Thr	Thr	Gln	Leu	Pro	Thr	Thr	His	125	130	135
Gln	Ala	Ser	Thr	Thr	Thr	Ala	Thr	Thr	Ala	Gln	Glu	Pro	Ala	Thr	140	145	150
Ser	His	Pro	His	Arg	Asp	Met	Gln	Pro	Gly	His	His	Glu	Thr	Ser	155	160	165
Thr	Pro	Ala	Gly	Pro	Ser	Gln	Ala	Asp	Leu	His	Thr	Pro	His	Thr	170	175	180
Glu	Asp	Gly	Gly	Pro	Ser	Ala	Thr	Glu	Arg	Ala	Ala	Glu	Asp	Gly	185	190	195
Ala	Ser	Ser	Gln	Leu	Pro	Ala	Ala	Glu	Gly	Ser	Gly	Glu	Gln	Asp	200	205	210
Phe	Thr	Phe	Glu	Thr	Ser	Gly	Glu	Asn	Thr	Ala	Val	Val	Ala	Val	215	220	225
Glu	Pro	Asp	Arg	Arg	Asn	Gln	Ser	Pro	Val	Asp	Gln	Gly	Ala	Thr	230	235	240
Gly	Ala	Ser	Gln	Gly	Leu	Leu	Asp	Arg	Lys	Glu	Val	Leu	Gly	Gly	245	250	255
Val	Ile	Ala	Gly	Gly	Leu	Val	Gly	Leu	Ile	Phe	Ala	Val	Cys	Leu	260	265	270
Val	Gly	Phe	Met	Leu	Tyr	Arg	Met	Lys	Lys	Lys	Asp	Glu	Gly	Ser	275	280	285
Tyr	Ser	Leu	Glu	Glu	Pro	Lys	Gln	Ala	Asn	Gly	Gly	Ala	Tyr	Gln	290	295	300
Lys	Pro	Thr	Lys	Gln	Glu	Glu	Phe	Tyr	Ala						305	310	

<210> 36

<211> 131
 <212> PRT
 <213> Homo sapien

<400> 36

Met	Lys	Ile	Phe	Leu	Pro	Val	Leu	Leu	Ala	Ala	Leu	Leu	Gly	Val	1	5	10	15
Glu	Arg	Ala	Ser	Ser	Leu	Met	Cys	Phe	Ser	Cys	Leu	Asn	Gln	Lys	20	25	30	
Ser	Asn	Leu	Tyr	Cys	Leu	Lys	Pro	Thr	Ile	Cys	Ser	Asp	Gln	Asp	35	40	45	
Asn	Tyr	Cys	Val	Thr	Val	Ser	Ala	Ser	Ala	Gly	Ile	Gly	Asn	Leu	50	55	60	
Val	Thr	Phe	Gly	His	Ser	Leu	Ser	Lys	Thr	Cys	Ser	Pro	Ala	Cys	65	70	75	
Pro	Ile	Pro	Glu	Gly	Val	Asn	Val	Gly	Val	Ala	Ser	Met	Gly	Ile	80	85	90	
Ser	Cys	Cys	Gln	Ser	Phe	Leu	Cys	Asn	Phe	Ser	Ala	Ala	Asp	Gly	95	100	105	
Gly	Leu	Arg	Ala	Ser	Val	Thr	Leu	Leu	Gly	Ala	Gly	Leu	Leu	Leu	110	115	120	
Ser	Leu	Leu	Pro	Ala	Leu	Leu	Arg	Phe	Gly	Pro	125	130						

<210> 37
 <211> 249
 <212> PRT
 <213> Homo sapien

<400> 37

Met	Asp	Gly	Lys	Lys	Cys	Ser	Val	Trp	Met	Phe	Leu	Pro	Leu	Val	1	5	10	15
Phe	Thr	Leu	Phe	Thr	Ser	Ala	Gly	Leu	Trp	Ile	Val	Tyr	Phe	Ile	20	25	30	
Ala	Val	Glu	Asp	Asp	Lys	Ile	Leu	Pro	Leu	Asn	Ser	Ala	Glu	Arg	35	40	45	
Lys	Pro	Gly	Val	Lys	His	Ala	Pro	Tyr	Ile	Ser	Ile	Ala	Gly	Asp	50	55	60	
Asp	Pro	Pro	Ala	Ser	Cys	Val	Phe	Ser	Gln	Val	Met	Asn	Met	Ala	65	70	75	
Ala	Phe	Leu	Ala	Leu	Val	Val	Ala	Val	Leu	Arg	Phe	Ile	Gln	Leu	80	85	90	
Lys	Pro	Lys	Val	Leu	Asn	Pro	Trp	Leu	Asn	Ile	Ser	Gly	Leu	Val	95	100	105	

Ala	Leu	Cys	Leu	Ala	Ser	Phe	Gly	Met	Thr	Leu	Leu	Gly	Asn	Phe	
			110						115					120	
Gln	Leu	Thr	Asn	Asp	Glu	Glu	Ile	His	Asn	Val	Gly	Thr	Ser	Leu	
			125						130					135	
Thr	Phe	Gly	Phe	Gly	Thr	Leu	Thr	Cys	Trp	Ile	Gln	Ala	Ala	Leu	
			140						145					150	
Thr	Leu	Lys	Val	Asn	Ile	Lys	Asn	Glu	Gly	Arg	Arg	Val	Gly	Ile	
			155						160					165	
Pro	Arg	Val	Ile	Leu	Ser	Ala	Ser	Ile	Thr	Leu	Cys	Val	Val	Leu	
			170						175					180	
Tyr	Phe	Ile	Leu	Met	Ala	Gln	Ser	Ile	His	Met	Tyr	Ala	Ala	Arg	
			185						190					195	
Val	Gln	Trp	Gly	Leu	Val	Met	Cys	Phe	Leu	Ser	Tyr	Phe	Gly	Thr	
			200						205					210	
Phe	Ala	Val	Glu	Phe	Arg	His	Tyr	Arg	Tyr	Glu	Ile	Val	Cys	Ser	
			215						220					225	
Glu	Tyr	Gln	Glu	Asn	Phe	Leu	Ser	Phe	Ser	Glu	Ser	Leu	Ser	Glu	
			230						235					240	
Ala	Ser	Glu	Tyr	Gln	Thr	Asp	Gln	Val							
			245												

<210> 38
 <211> 145
 <212> PRT
 <213> Homo sapien

<400> 38

Met	Glu	Leu	Ala	Leu	Leu	Cys	Gly	Leu	Val	Val	Met	Ala	Gly	Val	
1				5					10					15	
Ile	Pro	Ile	Gln	Gly	Gly	Ile	Leu	Asn	Leu	Asn	Lys	Met	Val	Lys	
			20						25					30	
Gln	Val	Thr	Gly	Lys	Met	Pro	Ile	Leu	Ser	Tyr	Trp	Pro	Tyr	Gly	
			35						40					45	
Cys	His	Cys	Gly	Leu	Gly	Gly	Arg	Gly	Gln	Pro	Lys	Asp	Ala	Thr	
			50						55					60	
Asp	Trp	Cys	Cys	Gln	Thr	His	Asp	Cys	Cys	Tyr	Asp	His	Leu	Lys	
			65						70					75	
Thr	Gln	Gly	Cys	Gly	Ile	Tyr	Lys	Asp	Tyr	Tyr	Arg	Tyr	Asn	Phe	
			80						85					90	
Ser	Gln	Gly	Asn	Ile	His	Cys	Ser	Asp	Lys	Gly	Ser	Trp	Cys	Glu	
			95						100					105	
Gln	Gln	Leu	Cys	Ala	Cys	Asp	Lys	Glu	Val	Ala	Phe	Cys	Leu	Lys	

110	115	120
Arg Asn Leu Asp Thr Tyr Gln Lys Arg	Leu Arg Phe Tyr Trp Arg	
125	130	135
Pro His Cys Arg Gly Gln Thr Pro Gly Cys		
140	145	
<210> 39		
<211> 1533		
<212> PRT		
<213> Homo sapien		
<400> 39		
Met Tyr Ile Arg Val Ser Tyr Asp Thr Lys Pro Asp Ser Leu Leu		
1	5	10 15
His Leu Met Val Lys Asp Trp Gln Leu Glu Leu Pro Lys Leu Leu		
	20	25 30
Ile Ser Val His Gly Gly Leu Gln Asn Phe Glu Met Gln Pro Lys		
	35	40 45
Leu Lys Gln Val Phe Gly Lys Gly Leu Ile Lys Ala Ala Met Thr		
	50	55 60
Thr Gly Ala Trp Ile Phe Thr Gly Gly Val Ser Thr Gly Val Ile		
	65	70 75
Ser His Val Gly Asp Ala Leu Lys Asp His Ser Ser Lys Ser Arg		
	80	85 90
Gly Arg Val Cys Ala Ile Gly Ile Ala Pro Trp Gly Ile Val Glu		
	95	100 105
Asn Lys Glu Asp Leu Val Gly Lys Asp Val Thr Arg Val Tyr Gln		
	110	115 120
Thr Met Ser Asn Pro Leu Ser Lys Leu Ser Val Leu Asn Asn Ser		
	125	130 135
His Thr His Phe Ile Leu Ala Asp Asn Gly Thr Leu Gly Lys Tyr		
	140	145 150
Gly Ala Glu Val Lys Leu Arg Arg Leu Leu Glu Lys His Ile Ser		
	155	160 165
Leu Gln Lys Ile Asn Thr Arg Leu Gly Gln Gly Val Pro Leu Val		
	170	175 180
Gly Leu Val Val Glu Gly Gly Pro Asn Val Val Ser Ile Val Leu		
	185	190 195
Glu Tyr Leu Gln Glu Glu Pro Pro Ile Pro Val Val Ile Cys Asp		
	200	205 210
Gly Ser Gly Arg Ala Ser Asp Ile Leu Ser Phe Ala His Lys Tyr		
	215	220 225

Cys	Glu	Glu	Gly	Gly	Ile	Ile	Asn	Glu	Ser	Leu	Arg	Glu	Gln	Leu	230	235	240	
Leu	Val	Thr	Ile	Gln	Lys	Thr	Phe	Asn	Tyr	Asn	Lys	Ala	Gln	Ser	245	250	255	
His	Gln	Leu	Phe	Ala	Ile	Ile	Met	Glu	Cys	Met	Lys	Lys	Lys	Glu	260	265	270	
Leu	Val	Thr	Val	Phe	Arg	Met	Gly	Ser	Glu	Gly	Gln	Gln	Asp	Ile	275	280	285	
Glu	Met	Ala	Ile	Leu	Thr	Ala	Leu	Leu	Lys	Gly	Thr	Asn	Val	Ser	290	295	300	
Ala	Pro	Asp	Gln	Leu	Ser	Leu	Ala	Leu	Ala	Trp	Asn	Arg	Val	Asp	305	310	315	
Ile	Ala	Arg	Ser	Gln	Ile	Phe	Val	Phe	Gly	Pro	His	Trp	Thr	Pro	320	325	330	
Leu	Gly	Ser	Leu	Ala	Pro	Pro	Thr	Asp	Ser	Lys	Ala	Thr	Glu	Lys	335	340	345	
Glu	Lys	Lys	Pro	Pro	Met	Ala	Thr	Thr	Lys	Gly	Gly	Arg	Gly	Lys	350	355	360	
Gly	Lys	Gly	Lys	Lys	Lys	Gly	Lys	Val	Lys	Glu	Glu	Val	Glu	Glu	365	370	375	
Glu	Thr	Asp	Pro	Arg	Lys	Ile	Glu	Leu	Leu	Asn	Trp	Val	Asn	Ala	380	385	390	
Leu	Glu	Gln	Ala	Met	Leu	Asp	Ala	Leu	Val	Leu	Asp	Arg	Val	Asp	395	400	405	
Phe	Val	Lys	Leu	Leu	Ile	Glu	Asn	Gly	Val	Asn	Met	Gln	His	Phe	410	415	420	
Leu	Thr	Ile	Pro	Arg	Leu	Glu	Glu	Leu	Tyr	Asn	Thr	Arg	Leu	Gly	425	430	435	
Pro	Pro	Asn	Thr	Leu	His	Leu	Leu	Val	Arg	Asp	Val	Lys	Lys	Ser	440	445	450	
Asn	Leu	Pro	Pro	Asp	Tyr	His	Ile	Ser	Leu	Ile	Asp	Ile	Gly	Leu	455	460	465	
Val	Leu	Glu	Tyr	Leu	Met	Gly	Gly	Ala	Tyr	Arg	Cys	Asn	Tyr	Thr	470	475	480	
Arg	Lys	Asn	Phe	Arg	Thr	Leu	Tyr	Asn	Asn	Leu	Phe	Gly	Pro	Lys	485	490	495	
Arg	Pro	Lys	Ala	Leu	Lys	Leu	Leu	Gly	Met	Glu	Asp	Asp	Glu	Pro	500	505	510	
Pro	Ala	Lys	Gly	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Glu	Glu	Glu			

515					520					525				
Ile	Asp	Ile	Asp	Val	Asp	Asp	Pro	Ala	Val	Ser	Arg	Phe	Gln	Tyr
				530					535					540
Pro	Phe	His	Glu	Leu	Met	Val	Trp	Ala	Val	Leu	Met	Lys	Arg	Gln
				545					550					555
Lys	Met	Ala	Val	Phe	Leu	Trp	Gln	Arg	Gly	Glu	Glu	Ser	Met	Ala
				560					565					570
Lys	Ala	Leu	Val	Ala	Cys	Lys	Leu	Tyr	Lys	Ala	Met	Ala	His	Glu
				575					580					585
Ser	Ser	Glu	Ser	Asp	Leu	Val	Asp	Asp	Ile	Ser	Gln	Asp	Leu	Asp
				590					595					600
Asn	Asn	Ser	Lys	Asp	Phe	Gly	Gln	Leu	Ala	Leu	Glu	Leu	Leu	Asp
				605					610					615
Gln	Ser	Tyr	Lys	His	Asp	Glu	Gln	Ile	Ala	Met	Lys	Leu	Leu	Thr
				620					625					630
Tyr	Glu	Leu	Lys	Asn	Trp	Ser	Asn	Ser	Thr	Cys	Leu	Lys	Leu	Ala
				635					640					645
Val	Ala	Ala	Lys	His	Arg	Asp	Phe	Ile	Ala	His	Thr	Cys	Ser	Gln
				650					655					660
Met	Leu	Leu	Thr	Asp	Met	Trp	Met	Gly	Arg	Leu	Arg	Met	Arg	Lys
				665					670					675
Asn	Pro	Gly	Leu	Lys	Val	Ile	Met	Gly	Ile	Leu	Leu	Pro	Pro	Thr
				680					685					690
Ile	Leu	Phe	Leu	Glu	Phe	Arg	Thr	Tyr	Asp	Asp	Phe	Ser	Tyr	Gln
				695					700					705
Thr	Ser	Lys	Glu	Asn	Glu	Asp	Gly	Lys	Glu	Lys	Glu	Glu	Glu	Asn
				710					715					720
Thr	Asp	Ala	Asn	Ala	Asp	Ala	Gly	Ser	Arg	Lys	Gly	Asp	Glu	Glu
				725					730					735
Asn	Glu	His	Lys	Lys	Gln	Arg	Ser	Ile	Pro	Ile	Gly	Thr	Lys	Ile
				740					745					750
Cys	Glu	Phe	Tyr	Asn	Ala	Pro	Ile	Val	Lys	Phe	Trp	Phe	Tyr	Thr
				755					760					765
Ile	Ser	Tyr	Leu	Gly	Tyr	Leu	Leu	Leu	Phe	Asn	Tyr	Val	Ile	Leu
				770					775					780
Val	Arg	Met	Asp	Gly	Trp	Pro	Ser	Leu	Gln	Glu	Trp	Ile	Val	Ile
				785					790					795
Ser	Tyr	Ile	Val	Ser	Leu	Ala	Leu	Glu	Lys	Ile	Arg	Glu	Ile	Leu
				800					805					810

Met Ser Glu Pro Gly Lys Leu Ser Gln Lys Ile Lys Val Trp Leu	815	820	825
Gln Glu Tyr Trp Asn Ile Thr Asp Leu Val Ala Ile Ser Thr Phe	830	835	840
Met Ile Gly Ala Ile Leu Arg Leu Gln Asn Gln Pro Tyr Met Gly	845	850	855
Tyr Gly Arg Val Ile Tyr Cys Val Asp Ile Ile Phe Trp Tyr Ile	860	865	870
Arg Val Leu Asp Ile Phe Gly Val Asn Lys Tyr Leu Gly Pro Tyr	875	880	885
Val Met Met Ile Gly Lys Met Met Ile Asp Met Leu Tyr Phe Val	890	895	900
Val Ile Met Leu Val Val Leu Met Ser Phe Gly Val Ala Arg Gln	905	910	915
Ala Ile Leu His Pro Glu Glu Lys Pro Ser Trp Lys Leu Ala Arg	920	925	930
Asn Ile Phe Tyr Met Pro Tyr Trp Met Ile Tyr Gly Glu Val Phe	935	940	945
Ala Asp Gln Ile Asp Leu Tyr Ala Met Glu Ile Asn Pro Pro Cys	950	955	960
Gly Glu Asn Leu Tyr Asp Glu Glu Gly Lys Arg Leu Pro Pro Cys	965	970	975
Ile Pro Gly Ala Trp Leu Thr Pro Ala Leu Met Ala Cys Tyr Leu	980	985	990
Leu Val Ala Asn Ile Leu Leu Val Asn Leu Leu Ile Ala Val Phe	995	1000	1005
Asn Asn Thr Phe Phe Glu Val Lys Ser Ile Ser Asn Gln Val Trp	1010	1015	1020
Lys Phe Gln Arg Tyr Gln Leu Ile Met Thr Phe His Asp Arg Pro	1025	1030	1035
Val Leu Pro Pro Pro Met Ile Ile Leu Ser His Ile Tyr Ile Ile	1040	1045	1050
Ile Met Arg Leu Ser Gly Arg Cys Arg Lys Lys Arg Glu Gly Asp	1055	1060	1065
Gln Glu Glu Arg Asp Arg Gly Leu Lys Leu Phe Leu Ser Asp Glu	1070	1075	1080
Glu Leu Lys Arg Leu His Glu Phe Glu Glu Gln Cys Val Gln Glu	1085	1090	1095
His Phe Arg Glu Lys Glu Asp Glu Gln Gln Ser Ser Ser Asp Glu			

1100	1105	1110
Arg Ile Arg Val Thr Ser Glu Arg Val Glu Asn Met Ser Met Arg 1115	1120	1125
Leu Glu Glu Ile Asn Glu Arg Glu Thr Phe Met Lys Thr Ser Leu 1130	1135	1140
Gln Thr Val Asp Leu Arg Leu Ala Gln Leu Glu Glu Leu Ser Asn 1145	1150	1155
Arg Met Val Asn Ala Leu Glu Asn Leu Ala Gly Ile Asp Arg Ser 1160	1165	1170
Asp Leu Ile Gln Ala Arg Ser Arg Ala Ser Ser Glu Cys Glu Ala 1175	1180	1185
Thr Tyr Leu Leu Arg Gln Ser Ser Ile Asn Ser Ala Asp Gly Tyr 1190	1195	1200
Ser Leu Tyr Arg Tyr His Phe Asn Gly Glu Glu Leu Leu Phe Glu 1205	1210	1215
Asp Thr Ser Leu Ser Thr Ser Pro Gly Thr Gly Val Arg Lys Lys 1220	1225	1230
Thr Cys Ser Phe Arg Ile Lys Glu Glu Lys Asp Val Lys Thr His 1235	1240	1245
Leu Val Pro Glu Cys Gln Asn Ser Leu His Leu Ser Leu Gly Thr 1250	1255	1260
Ser Thr Ser Ala Thr Pro Asp Gly Ser His Leu Ala Val Asp Asp 1265	1270	1275
Leu Lys Asn Ala Glu Glu Ser Lys Leu Gly Pro Asp Ile Gly Ile 1280	1285	1290
Ser Lys Glu Asp Asp Glu Arg Gln Thr Asp Ser Lys Lys Glu Glu 1295	1300	1305
Thr Ile Ser Pro Ser Leu Asn Lys Thr Asp Val Ile His Gly Gln 1310	1315	1320
Asp Lys Ser Asp Val Gln Asn Thr Gln Leu Thr Val Glu Thr Thr 1325	1330	1335
Asn Ile Glu Gly Thr Ile Ser Tyr Pro Leu Glu Glu Thr Lys Ile 1340	1345	1350
Thr Arg Tyr Phe Pro Asp Glu Thr Ile Asn Ala Cys Lys Thr Met 1355	1360	1365
Lys Ser Arg Ser Phe Val Tyr Ser Arg Gly Arg Lys Leu Val Gly 1370	1375	1380
Gly Val Asn Gln Asp Val Glu Tyr Ser Ser Ile Thr Asp Gln Gln 1385	1390	1395

Leu Thr Thr Glu Trp Gln Cys Gln Val Gln Lys Ile Thr Arg Ser
 1400 1405 1410
 His Ser Thr Asp Ile Pro Tyr Ile Val Ser Glu Ala Ala Val Gln
 1415 1420 1425
 Ala Glu Gln Lys Glu Gln Phe Ala Asp Met Gln Asp Glu His His
 1430 1435 1440
 Val Ala Glu Ala Ile Pro Arg Ile Pro Arg Leu Ser Leu Thr Ile
 1445 1450 1455
 Thr Asp Arg Asn Gly Met Glu Asn Leu Leu Ser Val Lys Pro Asp
 1460 1465 1470
 Gln Thr Leu Gly Phe Pro Ser Leu Arg Ser Lys Ser Leu His Gly
 1475 1480 1485
 His Pro Arg Asn Val Lys Ser Ile Gln Gly Lys Leu Asp Arg Ser
 1490 1495 1500
 Gly His Ala Ser Ser Val Ser Ser Leu Val Ile Val Ser Gly Met
 1505 1510 1515
 Thr Ala Glu Glu Lys Lys Val Lys Lys Glu Lys Ala Ser Thr Glu
 1520 1525 1530

Thr Glu Cys

<210> 40
 <211> 462
 <212> PRT
 <213> Homo sapien

<400> 40
 Met Ser Thr Glu Lys Val Asp Gln Lys Glu Glu Ala Gly Glu Lys
 1 5 10 15
 Glu Val Cys Gly Asp Gln Ile Lys Gly Pro Asp Lys Glu Glu Glu
 20 25 30
 Pro Pro Ala Ala Ala Ser His Gly Gln Gly Trp Arg Pro Gly Gly
 35 40 45
 Arg Ala Ala Arg Asn Ala Arg Pro Glu Pro Gly Ala Arg His Pro
 50 55 60
 Ala Leu Pro Ala Met Val Asn Asp Pro Pro Val Pro Ala Leu Leu
 65 70 75
 Trp Ala Gln Glu Val Gly Gln Val Leu Ala Gly Arg Ala Arg Arg
 80 85 90
 Leu Leu Leu Gln Phe Gly Val Leu Phe Cys Thr Ile Leu Leu Leu
 95 100 105
 Leu Trp Val Ser Val Phe Leu Tyr Gly Ser Phe Tyr Tyr Ser Tyr

110					115					120				
Met	Pro	Thr	Val	Ser	His	Leu	Ser	Pro	Val	His	Phe	Tyr	Tyr	Arg
				125					130					135
Thr	Asp	Cys	Asp	Ser	Ser	Thr	Thr	Ser	Leu	Cys	Ser	Phe	Pro	Val
				140					145					150
Ala	Asn	Val	Ser	Leu	Thr	Lys	Gly	Gly	Arg	Asp	Arg	Val	Leu	Met
				155					160					165
Tyr	Gly	Gln	Pro	Tyr	Arg	Val	Thr	Leu	Glu	Leu	Glu	Leu	Pro	Glu
				170					175					180
Ser	Pro	Val	Asn	Gln	Asp	Leu	Gly	Met	Phe	Leu	Val	Thr	Ile	Ser
				185					190					195
Cys	Tyr	Thr	Arg	Gly	Gly	Arg	Ile	Ile	Ser	Thr	Ser	Ser	Arg	Ser
				200					205					210
Val	Met	Leu	His	Tyr	Arg	Ser	Asp	Leu	Leu	Gln	Met	Leu	Asp	Thr
				215					220					225
Leu	Val	Phe	Ser	Ser	Leu	Leu	Leu	Phe	Gly	Phe	Ala	Glu	Gln	Lys
				230					235					240
Gln	Leu	Leu	Glu	Val	Glu	Leu	Tyr	Ala	Asp	Tyr	Arg	Glu	Asn	Ser
				245					250					255
Tyr	Val	Pro	Thr	Thr	Gly	Ala	Ile	Ile	Glu	Ile	His	Ser	Lys	Arg
				260					265					270
Ile	Gln	Leu	Tyr	Gly	Ala	Tyr	Leu	Arg	Ile	His	Ala	His	Phe	Thr
				275					280					285
Gly	Leu	Arg	Tyr	Leu	Leu	Tyr	Asn	Phe	Pro	Met	Thr	Cys	Ala	Phe
				290					295					300
Ile	Gly	Val	Ala	Ser	Asn	Phe	Thr	Phe	Leu	Ser	Val	Ile	Val	Leu
				305					310					315
Phe	Ser	Tyr	Met	Gln	Trp	Val	Trp	Gly	Gly	Ile	Trp	Pro	Arg	His
				320					325					330
Arg	Phe	Ser	Leu	Gln	Val	Asn	Ile	Arg	Lys	Arg	Asp	Asn	Ser	Arg
				335					340					345
Lys	Glu	Val	Gln	Arg	Arg	Ile	Ser	Ala	His	Gln	Pro	Gly	Pro	Glu
				350					355					360
Gly	Gln	Glu	Glu	Ser	Thr	Pro	Gln	Ser	Asp	Val	Thr	Glu	Asp	Gly
				365					370					375
Glu	Ser	Pro	Glu	Asp	Pro	Ser	Gly	Thr	Glu	Gly	Gln	Leu	Ser	Glu
				380					385					390
Glu	Glu	Lys	Pro	Asp	Gln	Gln	Pro	Leu	Ser	Gly	Glu	Glu	Glu	Leu
				395					400					405

Glu Pro Glu Ala Ser Asp Gly Ser Gly Ser Trp Glu Asp Ala Ala
 410 415 420

Leu Leu Thr Glu Ala Asn Leu Pro Ala Pro Ala Pro Ala Ser Ala
 425 430 435

Ser Ala Pro Val Leu Glu Thr Leu Gly Ser Ser Glu Pro Ala Gly
 440 445 450

Gly Ala Leu Arg Gln Arg Pro Thr Cys Ser Ser Ser
 455 460

<210> 41
 <211> 1015
 <212> PRT
 <213> Homo sapien

<400> 41

Met Gly Pro Pro Leu Pro Leu Leu Leu Leu Leu Leu Leu Leu
 1 5 10 15

Pro Pro Arg Val Leu Pro Ala Ala Pro Ser Ser Val Pro Arg Gly
 20 25 30

Arg Gln Leu Pro Gly Arg Leu Gly Cys Leu Leu Glu Glu Gly Leu
 35 40 45

Cys Gly Ala Ser Glu Ala Cys Val Asn Asp Gly Val Phe Gly Arg
 50 55 60

Cys Gln Lys Val Pro Ala Met Asp Phe Tyr Arg Tyr Glu Val Ser
 65 70 75

Pro Val Ala Leu Gln Arg Leu Arg Val Ala Leu Gln Lys Leu Ser
 80 85 90

Gly Thr Gly Phe Thr Trp Gln Asp Asp Tyr Thr Gln Tyr Val Met
 95 100 105

Asp Gln Glu Leu Ala Asp Leu Pro Lys Thr Tyr Leu Arg Arg Pro
 110 115 120

Glu Ala Ser Ser Pro Ala Arg Pro Ser Lys His Ser Val Gly Ser
 125 130 135

Glu Arg Arg Tyr Ser Arg Glu Gly Gly Ala Ala Leu Ala Asn Ala
 140 145 150

Leu Arg Arg His Leu Pro Phe Leu Glu Ala Leu Ser Gln Ala Pro
 155 160 165

Ala Ser Asp Val Leu Ala Arg Thr His Thr Ala Gln Asp Arg Pro
 170 175 180

Pro Ala Glu Gly Asp Asp Arg Phe Ser Glu Ser Ile Leu Thr Tyr
 185 190 195

Val Ala His Thr Ser Ala Leu Thr Tyr Pro Pro Gly Pro Arg Thr

200					205					210				
Gln	Leu	Arg	Glu	Asp	Leu	Leu	Pro	Arg	Thr	Leu	Gly	Gln	Leu	Gln
				215					220					225
Pro	Asp	Glu	Leu	Ser	Pro	Lys	Val	Asp	Ser	Gly	Val	Asp	Arg	His
				230					235					240
His	Leu	Met	Ala	Ala	Leu	Ser	Ala	Tyr	Ala	Ala	Gln	Arg	Pro	Pro
				245					250					255
Ala	Pro	Pro	Gly	Glu	Gly	Ser	Leu	Glu	Pro	Gln	Tyr	Leu	Leu	Arg
				260					265					270
Ala	Pro	Ser	Arg	Met	Pro	Arg	Pro	Leu	Leu	Ala	Pro	Ala	Ala	Pro
				275					280					285
Gln	Lys	Trp	Pro	Ser	Pro	Leu	Gly	Asp	Ser	Glu	Asp	Pro	Ser	Ser
				290					295					300
Thr	Gly	Asp	Gly	Ala	Arg	Ile	His	Thr	Leu	Leu	Lys	Asp	Leu	Gln
				305					310					315
Arg	Gln	Pro	Ala	Glu	Val	Arg	Gly	Leu	Ser	Gly	Leu	Glu	Leu	Asp
				320					325					330
Gly	Met	Ala	Glu	Leu	Met	Ala	Gly	Leu	Met	Gln	Gly	Val	Asp	His
				335					340					345
Gly	Val	Ala	Arg	Gly	Ser	Pro	Gly	Arg	Ala	Ala	Leu	Gly	Glu	Ser
				350					355					360
Gly	Glu	Gln	Ala	Asp	Gly	Pro	Lys	Ala	Thr	Leu	Arg	Gly	Asp	Ser
				365					370					375
Phe	Pro	Asp	Asp	Gly	Val	Gln	Asp	Asp	Asp	Asp	Arg	Leu	Tyr	Gln
				380					385					390
Glu	Val	His	Arg	Leu	Ser	Ala	Thr	Leu	Gly	Gly	Leu	Leu	Gln	Asp
				395					400					405
His	Gly	Ser	Arg	Leu	Leu	Pro	Gly	Ala	Leu	Pro	Phe	Ala	Arg	Pro
				410					415					420
Leu	Asp	Met	Glu	Arg	Lys	Lys	Ser	Glu	His	Pro	Glu	Ser	Ser	Leu
				425					430					435
Ser	Ser	Glu	Glu	Glu	Thr	Ala	Gly	Val	Glu	Asn	Val	Lys	Ser	Gln
				440					445					450
Thr	Tyr	Ser	Lys	Asp	Leu	Leu	Gly	Gln	Gln	Pro	His	Ser	Glu	Pro
				455					460					465
Gly	Ala	Ala	Ala	Phe	Gly	Glu	Leu	Gln	Asn	Gln	Met	Pro	Gly	Pro
				470					475					480
Ser	Lys	Glu	Glu	Gln	Ser	Leu	Pro	Ala	Gly	Ala	Gln	Glu	Ala	Leu
				485					490					495

Ser Asp Gly Leu	Gln Leu Glu Val	Gln Pro Ser Glu Glu Glu	Ala
500		505	510
Arg Gly Tyr Ile	Val Thr Asp Arg Asp	Pro Leu Arg Pro Glu	Glu
515		520	525
Gly Arg Arg Leu	Val Glu Asp Val Ala	Arg Leu Leu Gln Val	Pro
530		535	540
Ser Ser Ala Phe	Ala Asp Val Glu Val	Leu Gly Pro Ala Val	Thr
545		550	555
Phe Lys Val Ser	Ala Asn Val Gln Asn	Val Thr Thr Glu Asp	Val
560		565	570
Glu Lys Ala Thr	Val Asp Asn Lys Asp	Lys Leu Glu Glu Thr	Ser
575		580	585
Gly Leu Lys Ile	Leu Gln Thr Gly Val	Gly Ser Lys Ser Lys	Leu
590		595	600
Lys Phe Leu Pro	Pro Gln Ala Glu Gln	Glu Asp Ser Thr Lys	Phe
605		610	615
Ile Ala Leu Thr	Leu Val Ser Leu Ala	Cys Ile Leu Gly Val	Leu
620		625	630
Leu Ala Ser Gly	Leu Ile Tyr Cys Leu	Arg His Ser Ser Gln	His
635		640	645
Arg Leu Lys Glu	Lys Leu Ser Gly Leu	Gly Gly Asp Pro Gly	Ala
650		655	660
Asp Ala Thr Ala	Ala Tyr Gln Glu Leu	Cys Arg Gln Arg Met	Ala
665		670	675
Thr Arg Pro Pro	Asp Arg Pro Glu Gly	Pro His Thr Ser Arg	Ile
680		685	690
Ser Ser Val Ser	Ser Gln Phe Ser Asp	Gly Pro Ile Pro Ser	Pro
695		700	705
Ser Ala Arg Ser	Ser Ala Ser Ser Trp	Ser Glu Glu Pro Val	Gln
710		715	720
Ser Asn Met Asp	Ile Ser Thr Gly His	Met Ile Leu Ser Tyr	Met
725		730	735
Glu Asp His Leu	Lys Asn Lys Asn Arg	Leu Glu Lys Glu Trp	Glu
740		745	750
Ala Leu Cys Ala	Tyr Gln Ala Glu Pro	Asn Ser Ser Phe Val	Ala
755		760	765
Gln Arg Glu Glu	Asn Val Pro Lys Asn	Arg Ser Leu Ala Val	Leu
770		775	780
Thr Tyr Asp His	Ser Arg Val Leu Leu	Lys Ala Glu Asn Ser	His

785					790					795				
Ser	His	Ser	Asp	Tyr	Ile	Asn	Ala	Ser	Pro	Ile	Met	Asp	His	Asp
				800					805					810
Pro	Arg	Asn	Pro	Ala	Tyr	Ile	Ala	Thr	Gln	Gly	Pro	Leu	Pro	Ala
				815					820					825
Thr	Val	Ala	Asp	Phe	Trp	Gln	Met	Val	Trp	Glu	Ser	Gly	Cys	Val
				830					835					840
Val	Ile	Val	Met	Leu	Thr	Pro	Leu	Ala	Glu	Asn	Gly	Val	Arg	Gln
				845					850					855
Cys	Tyr	His	Tyr	Trp	Pro	Asp	Glu	Gly	Ser	Asn	Leu	Tyr	His	Ile
				860					865					870
Tyr	Glu	Val	Asn	Leu	Val	Ser	Glu	His	Ile	Trp	Cys	Glu	Asp	Phe
				875					880					885
Leu	Val	Arg	Ser	Phe	Tyr	Leu	Lys	Asn	Leu	Gln	Thr	Asn	Glu	Thr
				890					895					900
Arg	Thr	Val	Thr	Gln	Phe	His	Phe	Leu	Ser	Trp	Tyr	Asp	Arg	Gly
				905					910					915
Val	Pro	Ser	Ser	Ser	Arg	Ser	Leu	Leu	Asp	Phe	Arg	Arg	Lys	Val
				920					925					930
Asn	Lys	Cys	Tyr	Arg	Gly	Arg	Ser	Cys	Pro	Ile	Ile	Val	His	Cys
				935					940					945
Ser	Asp	Gly	Ala	Gly	Arg	Ser	Gly	Thr	Tyr	Val	Leu	Ile	Asp	Met
				950					955					960
Val	Leu	Asn	Lys	Met	Ala	Lys	Gly	Ala	Lys	Glu	Ile	Asp	Ile	Ala
				965					970					975
Ala	Thr	Leu	Glu	His	Leu	Arg	Asp	Gln	Arg	Pro	Gly	Met	Val	Gln
				980					985					990
Thr	Lys	Glu	Gln	Phe	Glu	Phe	Ala	Leu	Thr	Ala	Val	Ala	Glu	Glu
				995					1000					1005
Val	Asn	Ala	Ile	Leu	Lys	Ala	Leu	Pro	Gln					
				1010					1015					

<210> 42
 <211> 442
 <212> PRT
 <213> Homo sapien

<400> 42
 Met Gln Pro Pro Pro Ser Leu Cys Gly Arg Ala Leu Val Ala Leu
 1 5 10 15
 Val Leu Ala Cys Gly Leu Ser Arg Ile Trp Gly Glu Glu Arg Gly
 20 25 30

Phe	Pro	Pro	Asp	Arg	Ala	Thr	Pro	Leu	Leu	Gln	Thr	Ala	Glu	Ile	35	40	45
Met	Thr	Pro	Pro	Thr	Lys	Thr	Leu	Trp	Pro	Lys	Gly	Ser	Asn	Ala	50	55	60
Ser	Leu	Ala	Arg	Ser	Leu	Ala	Pro	Ala	Glu	Val	Pro	Lys	Gly	Asp	65	70	75
Arg	Thr	Ala	Gly	Ser	Pro	Pro	Arg	Thr	Ile	Ser	Pro	Pro	Pro	Cys	80	85	90
Gln	Gly	Pro	Ile	Glu	Ile	Lys	Glu	Thr	Phe	Lys	Tyr	Ile	Asn	Thr	95	100	105
Val	Val	Ser	Cys	Leu	Val	Phe	Val	Leu	Gly	Ile	Ile	Gly	Asn	Ser	110	115	120
Thr	Leu	Leu	Arg	Ile	Ile	Tyr	Lys	Asn	Lys	Cys	Met	Arg	Asn	Gly	125	130	135
Pro	Asn	Ile	Leu	Ile	Ala	Ser	Leu	Ala	Leu	Gly	Asp	Leu	Leu	His	140	145	150
Ile	Val	Ile	Asp	Ile	Pro	Ile	Asn	Val	Tyr	Lys	Leu	Leu	Ala	Glu	155	160	165
Asp	Trp	Pro	Phe	Gly	Ala	Glu	Met	Cys	Lys	Leu	Val	Pro	Phe	Ile	170	175	180
Gln	Lys	Ala	Ser	Val	Gly	Ile	Thr	Val	Leu	Ser	Leu	Cys	Ala	Leu	185	190	195
Ser	Ile	Asp	Arg	Tyr	Arg	Ala	Val	Ala	Ser	Trp	Ser	Arg	Ile	Lys	200	205	210
Gly	Ile	Gly	Val	Pro	Lys	Trp	Thr	Ala	Val	Glu	Ile	Val	Leu	Ile	215	220	225
Trp	Val	Val	Ser	Val	Val	Leu	Ala	Val	Pro	Glu	Ala	Ile	Gly	Phe	230	235	240
Asp	Ile	Ile	Thr	Met	Asp	Tyr	Lys	Gly	Ser	Tyr	Leu	Arg	Ile	Cys	245	250	255
Leu	Leu	His	Pro	Val	Gln	Lys	Thr	Ala	Phe	Met	Gln	Phe	Tyr	Lys	260	265	270
Thr	Ala	Lys	Asp	Trp	Trp	Leu	Phe	Ser	Phe	Tyr	Phe	Cys	Leu	Pro	275	280	285
Leu	Ala	Ile	Thr	Ala	Phe	Phe	Tyr	Thr	Leu	Met	Thr	Cys	Glu	Met	290	295	300
Leu	Arg	Lys	Lys	Ser	Gly	Met	Gln	Ile	Ala	Leu	Asn	Asp	His	Leu	305	310	315
Lys	Gln	Arg	Arg	Glu	Val	Ala	Lys	Thr	Val	Phe	Cys	Leu	Val	Leu			

320	325	330
Val Phe Ala Leu Cys Trp Leu Pro Leu	His Leu Ser Arg Ile Leu	
335	340	345
Lys Leu Thr Leu Tyr Asn Gln Asn Asp	Pro Asn Arg Cys Glu Leu	
350	355	360
Leu Ser Phe Leu Leu Val Leu Asp Tyr	Ile Gly Ile Asn Met Ala	
365	370	375
Ser Leu Asn Ser Cys Ile Asn Pro Ile	Ala Leu Tyr Leu Val Ser	
380	385	390
Lys Arg Phe Lys Asn Cys Phe Lys Ser	Cys Leu Cys Cys Trp Cys	
395	400	405
Gln Ser Phe Glu Glu Lys Gln Ser Leu	Glu Glu Lys Gln Ser Cys	
410	415	420
Leu Lys Phe Lys Ala Asn Asp His Gly	Tyr Asp Asn Phe Arg Ser	
425	430	435
Ser Asn Lys Tyr Ser Ser Ser		
440		